## Aggretation1

#### Xin

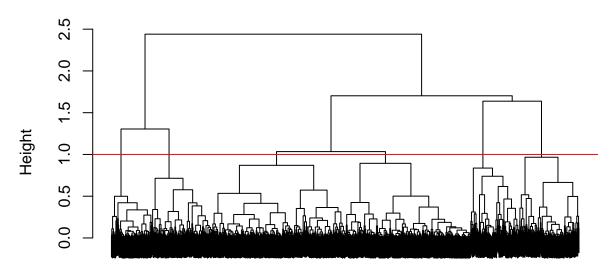
#### 2024-05-15

```
library(electBook)
## Registered S3 method overwritten by 'quantmod':
##
     as.zoo.data.frame zoo
library(dplyr)
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
       filter, lag
##
## The following objects are masked from 'package:base':
##
##
       intersect, setdiff, setequal, union
library(tidyr)
library(lubridate)
## Attaching package: 'lubridate'
## The following objects are masked from 'package:base':
##
       date, intersect, setdiff, union
library(proxy)
## Attaching package: 'proxy'
## The following objects are masked from 'package:stats':
##
       as.dist, dist
```

```
## The following object is masked from 'package:base':
##
##
       as.matrix
library(tibble)
library(ggplot2)
# Load the dataset
data(Irish)
# Calculate the number of zero values in each column
col_zero_counts <- colSums(Irish$indCons == 0)</pre>
# Identify columns to remove (columns with more than 30*48 zero values)
cols_to_remove <- which(col_zero_counts > 30 * 48)
# Create a data frame with demand data and remove identified columns
df <- Irish$indCons</pre>
df <- df[,-cols_to_remove]</pre>
# Add date and time columns
df$date <- as.Date(Irish$extra$dateTime)</pre>
df$time <- format(Irish$extra$dateTime, "%H:%M:%S")</pre>
# Gather the data into long format
df_long <- df %>%
  pivot_longer(cols = -c(date, time), names_to = "household_id", values_to = "demand")
# Calculate the average demand over the year for each 30-minute interval
avg_demand <- df_long %>%
  group_by(household_id, time) %>%
  summarise(average_demand = mean(demand, na.rm = TRUE)) %>%
  ungroup()
## `summarise()` has grouped output by 'household_id'. You can override using the
## `.groups` argument.
avg_demand_wide <- avg_demand %>%
 pivot_wider(names_from = time, values_from = average_demand)
# Display the result
print(avg_demand_wide)
## # A tibble: 2,645 x 49
     household_id `00:00:00` `00:30:00` `01:00:00` `01:30:00` `02:00:00`
##
      <chr>>
                        <dbl>
                                   <dbl>
                                               <dbl>
                                                          <dbl>
                                                                     <dbl>
## 1 I1002
                                  0.0721
                                              0.0708
                                                         0.0630
                        0.103
                                                                    0.0641
## 2 I1003
                        0.515
                                 0.476
                                                         0.402
                                                                    0.370
                                              0.431
## 3 I1004
                        0.870
                                 0.763
                                              0.667
                                                         0.610
                                                                    0.546
## 4 I1005
                        0.332
                                  0.309
                                             0.274
                                                        0.258
                                                                    0.256
## 5 I1013
                        0.153
                                 0.124
                                             0.105
                                                        0.0947
                                                                    0.0937
## 6 I1015
                        0.218
                                 0.195
                                             0.194
                                                         0.188
                                                                    0.183
```

```
## 7 I1018
                                 0.656
                                                         0.625
                                                                    0.616
                        0.696
                                             0.652
## 8 I1020
                        0.267
                                 0.220
                                             0.201
                                                         0.194
                                                                    0.186
## 9 I1022
                                                         0.0815
                        0.146
                                 0.127
                                              0.0873
                                                                    0.0780
## 10 I1024
                                  0.132
                                              0.134
                                                                    0.143
                        0.131
                                                         0.145
## # i 2,635 more rows
## # i 43 more variables: `02:30:00` <dbl>, `03:00:00` <dbl>, `03:30:00` <dbl>,
     `04:00:00` <dbl>, `04:30:00` <dbl>, `05:00:00` <dbl>, `05:30:00` <dbl>,
       `06:00:00` <dbl>, `06:30:00` <dbl>, `07:00:00` <dbl>, `07:30:00` <dbl>,
## #
       `08:00:00` <dbl>, `08:30:00` <dbl>, `09:00:00` <dbl>, `09:30:00` <dbl>,
      `10:00:00` <dbl>, `10:30:00` <dbl>, `11:00:00` <dbl>, `11:30:00` <dbl>,
## #
      `12:00:00` <dbl>, `12:30:00` <dbl>, `13:00:00` <dbl>, `13:30:00` <dbl>, ...
# Compute the cosine similarity matrix
compute_cosine_similarity_matrix <- function(data) {</pre>
  data_matrix <- as.matrix(data[-1]) # Remove the household_id column</pre>
  similarity_matrix <- proxy::simil(data_matrix, method = "cosine")</pre>
 dist_matrix <- 1 - similarity_matrix</pre>
 return(as.matrix(dist_matrix))
}
cosine_distances <- compute_cosine_similarity_matrix(avg_demand_wide)</pre>
# Hierarchical clustering
hc <- hclust(as.dist(cosine_distances), method = "ward.D2")</pre>
# Plot the dendrogram
plot(hc, labels = FALSE, main = "Dendrogram of Households", xlab = "Households", ylab = "Height")
abline(h=1,col="red")
```

### **Dendrogram of Households**



# Households hclust (\*, "ward.D2")

```
# Create clusters
clusters <- cutree(hc, k = 6)
avg_demand_wide$cluster <- clusters
# Summarize the number of households in each cluster
cluster_summary <- avg_demand_wide %>%
    group_by(cluster) %>%
    summarise(num_households = n())

# Display the summary
print(cluster_summary)
```

```
## # A tibble: 6 x 2
##
     cluster num_households
##
       <int>
                       <int>
## 1
           1
                         754
## 2
           2
                         341
## 3
           3
                         705
## 4
           4
                         277
           5
## 5
                         232
## 6
                         336
```

```
# Reshape avg_demand back to long format
avg_demand_long <- avg_demand_wide %>%
    pivot_longer(cols = -c(household_id, cluster), names_to = "time", values_to = "daily_demand")
```

```
# Join cluster information back to the original dataframe
df_with_clusters <- df_long %>%
  left_join(avg_demand_long, by = c("household_id", "time"))
# Analyze cluster characteristics
cluster_analysis <- df_with_clusters %>%
  group_by(cluster) %>%
  summarise(
    average_demand = mean(daily_demand, na.rm = TRUE)
print(cluster_analysis)
## # A tibble: 6 x 2
   cluster average_demand
       <int>
                      <dbl>
##
## 1
          1
                      0.518
## 2
          2
                     0.440
## 3
           3
                     0.542
## 4
          4
                      0.494
## 5
           5
                      0.472
## 6
           6
                      0.482
df_t <- as.data.frame(t(df[,-c(ncol(df)-1,ncol(df))]))</pre>
# Step 2: Add the clusters as a new column to the transposed data frame
df_t$cluster <- clusters</pre>
# Step 3: Group by cluster and calculate the mean for each row within each cluster
mean by cluster <- df t %>%
  group_by(cluster) %>%
  summarise(across(everything(), mean, na.rm = TRUE))
## Warning: There was 1 warning in `summarise()`.
## i In argument: `across(everything(), mean, na.rm = TRUE)`.
## i In group 1: `cluster = 1`.
## Caused by warning:
## ! The `...` argument of `across()` is deprecated as of dplyr 1.1.0.
## Supply arguments directly to `.fns` through an anonymous function instead.
##
##
     # Previously
##
     across(a:b, mean, na.rm = TRUE)
##
##
     # Now
##
     across(a:b, \x) mean(x, na.rm = TRUE))
mean_by_cluster <- as.data.frame(mean_by_cluster[,-1])</pre>
rownames(mean_by_cluster) <- c("Cluster 1", "Cluster 2", "Cluster 3", "Cluster 4", "Cluster 5", "Cluster 6")
# View the result
print(mean_by_cluster)
                  8114
                            8115
                                                 8117
                                                           8118
                                                                     8119
                                                                                8120
##
                                       8116
```

```
## Cluster 1 0.5690531 0.4515690 0.3734496 0.3057414 0.2624218 0.2491910 0.2107865
## Cluster 2 0.6211584 0.4668358 0.3567683 0.3211408 0.2705337 0.2262287 0.1992346
## Cluster 3 0.7272908 0.6324426 0.5447660 0.4731830 0.3912837 0.3270000 0.2870894
## Cluster 4 0.4869314 0.4188953 0.3694910 0.3158375 0.3068123 0.2934188 0.2780686
## Cluster 5 0.8591121 0.8098621 0.7029784 0.6303922 0.5516552 0.4941983 0.4133491
                  8121
                            8122
                                                8124
                                                           8125
                                                                     8126
##
                                      8123
                                                                               8127
## Cluster 1 0.2028024 0.1918488 0.1879536 0.1803992 0.1856870 0.1952095 0.2047095
## Cluster 2 0.1907243 0.1852698 0.1756364 0.1710264 0.1836217 0.1915865 0.1897859
## Cluster 3 0.2505915 0.2411986 0.2386610 0.2244128 0.2239518 0.2271730 0.2386426
## Cluster 4 0.2765523 0.2959097 0.2905487 0.2904513 0.2990108 0.3083394 0.3678736
  Cluster 5 0.3627716 0.3327328 0.3117888 0.2887672 0.3127155 0.2863190 0.3092457
                  8128
                            8129
                                      8130
                                                8131
                                                           8132
                                                                     8133
                                                                               8134
## Cluster 1 0.2274775 0.2642308 0.3176260 0.3961525 0.4315942 0.5719284 0.6571472
## Cluster 2 0.2193930 0.2473812 0.2680821 0.3190968 0.3757273 0.3761496 0.4592405
## Cluster 3 0.2538624 0.2686922 0.3051787 0.3441489 0.3636397 0.4217489 0.4782340
## Cluster 4 0.4044296 0.4699783 0.6378412 0.6055632 0.6596606 0.6982780 0.6825199
## Cluster 5 0.3132026 0.3230474 0.3466853 0.3836940 0.4666810 0.4724741 0.4806379
##
                  8135
                            8136
                                      8137
                                                8138
                                                           8139
                                                                     8140
                                                                               8141
## Cluster 1 0.7655981 0.8419668 0.8714973 0.8658196 0.8609682 0.8919204 0.9401605
## Cluster 2 0.5891906 0.6212903 0.5809941 0.6021848 0.6310176 0.6198387 0.6185367
## Cluster 3 0.5482582 0.6834298 0.7441333 0.7867433 0.8237106 0.8121801 0.8284199
## Cluster 4 0.6930975 0.7385415 0.7339639 0.7100794 0.8232383 0.7443321 0.7775921
## Cluster 5 0.4890733 0.5487586 0.6020129 0.6817112 0.6714181 0.7147241 0.7046121
                  8142
                            8143
                                      8144
                                                8145
                                                           8146
## Cluster 1 0.9248475 0.8756300 0.8710517 0.9237666 0.9567639 0.9838859 1.1191154
## Cluster 2 0.6008094 0.5631496 0.6506334 0.6615953 0.6735191 0.7204194 0.8212786
## Cluster 3 0.8684312 0.8922113 0.9034837 0.9525887 0.9957121 1.0728610 1.1549007
## Cluster 4 0.7354260 0.7142960 0.7241516 0.7210939 0.8136426 0.8559928 1.0042996
## Cluster 5 0.7640905 0.6561164 0.6802414 0.7516724 0.7874267 0.8449267 0.8930733
##
                  8149
                           8150
                                    8151
                                              8152
                                                        8153
                                                                  8154
                                                                            8155
## Cluster 1 1.2967122 1.398607 1.333406 1.2659151 1.2627745 1.220727 1.0933992
## Cluster 2 0.9630733 1.055481 1.152994 1.1346041 1.1445865 1.138044 1.1648299
## Cluster 3 1.2607163 1.298182 1.265444 1.2489660 1.2387376 1.183234 1.1773589
## Cluster 4 1.0926895 1.105653 1.085585 0.9824477 0.9398592 0.887231 0.8540542
## Cluster 5 0.9730345 1.107888 1.139147 1.1690172 1.1177888 1.129513 1.0456034
                  8156
                            8157
                                                           8160
                                      8158
                                                8159
                                                                     8161
## Cluster 1 1.0660464 1.0147188 0.9619403 0.8717812 0.7956883 0.7201074 0.6331127
## Cluster 2 1.0690176 1.0383988 0.9771818 0.9421349 0.8727185 0.7572845 0.7076510
## Cluster 3 1.0900950 1.0881064 1.0397787 0.9839135 0.9680454 0.8584936 0.8037532
## Cluster 4 0.8390794 0.8446859 0.8105993 0.7406137 0.6267473 0.5599603 0.6040469
## Cluster 5 1.0434526 1.0721078 1.0425129 1.0027112 1.0071379 0.9018103 0.8913060
                  8307
                            8308
                                      8309
                                                8310
                                                           8311
                                                                     8312
                                                                               8313
## Cluster 1 0.5319576 0.3972387 0.3100398 0.2621631 0.2439138 0.2152334 0.2055318
## Cluster 2 0.5695836 0.4306921 0.3758739 0.3068240 0.2511584 0.2234282 0.2028739
## Cluster 3 0.6928284 0.5967248 0.4965943 0.4268085 0.3878567 0.3295376 0.3002255
## Cluster 4 0.5424874 0.4760433 0.4214657 0.3908195 0.3400397 0.3423321 0.3237617
## Cluster 5 0.8015474 0.7315603 0.6675129 0.6009052 0.5391509 0.4400302 0.3864095
                            8315
                                      8316
                                                                     8319
##
                  8314
                                                8317
                                                           8318
                                                                               8320
## Cluster 1 0.1955836 0.1891711 0.1816711 0.1862878 0.1846021 0.1912202 0.1969721
## Cluster 2 0.1934516 0.1897214 0.1854575 0.1818944 0.1770323 0.1748182 0.1946657
## Cluster 3 0.2697745 0.2556567 0.2425390 0.2307092 0.2268652 0.2314610 0.2420369
## Cluster 4 0.3247004 0.3239675 0.3345271 0.3407292 0.3331625 0.3830397 0.4032708
## Cluster 5 0.3462500 0.3447888 0.3150905 0.2938750 0.2897155 0.2851983 0.3039353
##
                  8321
                            8322
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                                                8324
                                                           8325
                                                                     8326
                                                                               8327
```

```
## Cluster 1 0.2207374 0.2597162 0.2960027 0.3761552 0.4873621 0.5965942 0.6716883
## Cluster 2 0.2147507 0.2362698 0.2884545 0.3258065 0.3688651 0.4356833 0.5452141
## Cluster 3 0.2440071 0.2647333 0.2906270 0.3294950 0.3847617 0.4617730 0.5394567
## Cluster 4 0.4252419 0.4807942 0.5485812 0.5880614 0.6678448 0.7617112 0.7752888
## Cluster 5 0.3522716 0.3736336 0.3869483 0.4197974 0.4517026 0.5130172 0.5628276
                  8328
                            8329
                                                           8332
                                      8330
                                                8331
                                                                     8333
                                                                               8334
## Cluster 1 0.8129867 0.8802639 0.9208714 0.9565836 0.9837334 1.0348422 1.0209668
## Cluster 2 0.5377155 0.5861672 0.5642581 0.6275865 0.6672405 0.6660674 0.6777126
## Cluster 3 0.6545759 0.7349021 0.7573149 0.8615674 0.9857504 0.9969702 0.9969787
## Cluster 4 0.7471913 0.7883105 0.7742022 0.8482924 0.8111083 0.8342455 0.8263538
## Cluster 5 0.5543750 0.6025560 0.5928448 0.7169181 0.7211638 0.6712155 0.7395603
                  8335
                            8336
                                      8337
                                                8338
                                                           8339
                                                                     8340
                                                                               8341
## Cluster 1 0.9522520 0.9119549 0.9075239 0.9179111 0.9429390 1.0627082 1.2149920
## Cluster 2 0.7057713 0.6377478 0.6420059 0.6226217 0.6737742 0.7643636 0.9143519
## Cluster 3 0.9434000 0.9209220 0.9468057 0.9294284 0.9977645 1.0671078 1.1903915
## Cluster 4 0.7731372 0.7134838 0.7076282 0.8002924 0.8971119 0.9018556 1.0396245
## Cluster 5 0.7724181 0.7261681 0.6704181 0.6288879 0.7393879 0.8235776 0.9174612
##
                 8342
                           8343
                                     8344
                                               8345
                                                          8346
                                                                    8347
                                                                              8348
## Cluster 1 1.307947 1.2845955 1.2289761 1.1969708 1.1223090 1.0549085 1.0071499
## Cluster 2 1.047768 1.1766070 1.2280704 1.1805425 1.1547361 1.1926393 1.0921378
## Cluster 3 1.194543 1.1997986 1.1812851 1.1646553 1.1565887 1.1069348 1.0835078
## Cluster 4 1.027397 0.9766787 0.9794368 0.9385199 0.8959856 0.9139928 0.8566823
## Cluster 5 0.984056 0.9486681 1.0677371 1.0693534 1.0663017 1.0230172 0.9790733
                  8349
                            8350
                                      8351
                                                8352
                                                           8353
                                                                     8354
## Cluster 1 1.0107215 0.9426393 0.8327095 0.7462281 0.6417069 0.5184549 0.4027016
## Cluster 2 1.0467009 1.0298416 0.9436804 0.8066686 0.7235015 0.6145191 0.4739560
## Cluster 3 1.0867631 1.0265716 0.9725007 0.9290638 0.8430326 0.7431220 0.6201901
## Cluster 4 0.8179061 0.7503971 0.6710144 0.6629964 0.5738845 0.5202635 0.4235126
## Cluster 5 0.9589871 0.9192888 0.9991034 0.9460388 0.9120690 0.8250086 0.7175172
##
                  8356
                            8357
                                      8358
                                                8359
                                                           8360
                                                                     8361
                                                                               8362
## Cluster 1 0.3319934 0.2683873 0.2387149 0.2077905 0.1884244 0.1804456 0.1715531
## Cluster 2 0.3667742 0.2856804 0.2405865 0.2023607 0.1917654 0.1814985 0.1715337
## Cluster 3 0.5221915 0.4383418 0.3690355 0.3235943 0.3025801 0.2819560 0.2621291
## Cluster 4 0.3978556 0.3330686 0.3104693 0.3158881 0.3024404 0.2967798 0.3075921
## Cluster 5 0.6167716 0.5716897 0.5115000 0.4224138 0.3819483 0.3746853 0.3324224
                            8364
                                      8365
                                                           8367
                  8363
                                                8366
                                                                     8368
## Cluster 1 0.1743395 0.1807997 0.1885875 0.1987825 0.2249801 0.2573289 0.3321764
## Cluster 2 0.1660000 0.1625601 0.1810293 0.2104311 0.2595836 0.2910469 0.3901144
## Cluster 3 0.2377915 0.2374213 0.2330922 0.2358525 0.2619929 0.2798950 0.3207688
## Cluster 4 0.2939567 0.3168087 0.3094549 0.3290758 0.3899856 0.5825379 0.6082238
## Cluster 5 0.3460043 0.3200776 0.2958405 0.3025474 0.3167198 0.3603793 0.4199181
                  8370
                            8371
                                      8372
                                                8373
                                                           8374
                                                                     8375
                                                                               8376
## Cluster 1 0.3792586 0.4381048 0.5160411 0.6138501 0.6647228 0.7038966 0.7112838
## Cluster 2 0.4047595 0.4500147 0.4141848 0.3838035 0.4042551 0.4007801 0.3922991
## Cluster 3 0.3722624 0.3919262 0.4247660 0.4377929 0.4933943 0.5655787 0.5946624
## Cluster 4 0.7046173 0.7834007 0.6461480 0.6607184 0.6770722 0.6891949 0.6223646
## Cluster 5 0.4487888 0.4456466 0.4439569 0.4808922 0.5104655 0.4910302 0.4782328
                  8377
                            8378
                                      8379
                                                8380
                                                           8381
                                                                     8382
##
                                                                               8383
## Cluster 1 0.7407918 0.7467546 0.7500477 0.7809244 0.7767865 0.7605000 0.7026300
## Cluster 2 0.3954692 0.3953812 0.4374956 0.4659531 0.4759238 0.4766540 0.5143871
## Cluster 3 0.6443035 0.6694085 0.7333390 0.7523404 0.8123191 0.8157418 0.8259461
## Cluster 4 0.6601047 0.6383105 0.6364801 0.6799747 0.6828736 0.6583646 0.6616534
## Cluster 5 0.5384871 0.5176422 0.5800862 0.4953017 0.5368793 0.5589483 0.5954698
##
                  8384
                            8385
                                      8386
                                                8387
                                                           8388
                                                                     8389
                                                                               8390
```

```
## Cluster 1 0.6953873 0.7159695 0.7578501 0.8388793 1.1099483 1.3679164 1.4837228
## Cluster 2 0.4663900 0.4663050 0.4502434 0.5298387 0.6534106 0.8965191 1.1134428
## Cluster 3 0.7981560 0.7972397 0.8228539 0.9703730 1.1048865 1.2422681 1.3401106
## Cluster 4 0.6634621 0.6541733 0.7337004 0.8603899 0.9192310 0.9959603 1.0748773
## Cluster 5 0.4894440 0.5176853 0.6135991 0.6346250 0.7429267 0.8678664 0.9846293
                           8392
                                              8394
##
                 8391
                                    8393
                                                        8395
                                                                   8396
## Cluster 1 1.440142 1.3013289 1.226523 1.2157374 1.1409496 1.0519231 1.0200743
## Cluster 2 1.240660 1.2762962 1.337589 1.2640235 1.1975396 1.1988856 1.2122141
## Cluster 3 1.294306 1.2733433 1.218769 1.2035915 1.1761305 1.1185518 1.1315333
## Cluster 4 1.065318 1.0596823 1.066083 0.9325162 0.9142455 0.8504585 0.8772419
  Cluster 5 1.038862 0.9888147 1.092776 1.1126853 1.0506724 1.0436638 1.0512457
                            8399
                  8398
                                      8400
                                                8401
                                                           8402
                                                                     8403
                                                                               8404
## Cluster 1 0.9215610 0.8141088 0.7307997 0.6656936 0.5376021 0.4125027 0.3093263
## Cluster 2 1.1537302 0.9946979 0.8522551 0.7530029 0.6359384 0.4596569 0.3617390
## Cluster 3 1.0277546 0.9790965 0.9031447 0.8870000 0.7766695 0.6358057 0.5157957
## Cluster 4 0.8426931 0.7800686 0.7088375 0.5953827 0.5140144 0.4466282 0.3720614
## Cluster 5 1.1008707 1.0485043 0.9674526 0.9605129 0.8920388 0.8202069 0.7672457
##
                  8405
                            8406
                                      8407
                                                8408
                                                           8409
                                                                     8410
                                                                               8411
## Cluster 1 0.2458223 0.2190915 0.2053236 0.1934509 0.1859536 0.1781074 0.1780212
## Cluster 2 0.2682375 0.2170205 0.1863812 0.1859150 0.1827097 0.1765279 0.1732610
## Cluster 3 0.4206128 0.3379830 0.3039163 0.2807234 0.2534723 0.2423532 0.2332837
## Cluster 4 0.3283141 0.3186426 0.2980542 0.2866390 0.2806426 0.2922599 0.2896390
## Cluster 5 0.6701724 0.5215302 0.4584440 0.4271681 0.3528793 0.3260560 0.3191293
                  8412
                            8413
                                      8414
                                                8415
                                                           8416
                                                                     8417
## Cluster 1 0.1789218 0.1862294 0.1846419 0.2092971 0.2625106 0.3345968 0.4022268
## Cluster 2 0.1789003 0.2029003 0.2250938 0.2730381 0.3065953 0.4035308 0.4590088
## Cluster 3 0.2250681 0.2250454 0.2257248 0.2561007 0.2921589 0.3365972 0.3685418
## Cluster 4 0.2991300 0.3058809 0.3539892 0.4233213 0.5423141 0.6890253 0.6931913
## Cluster 5 0.2929698 0.2934181 0.2945690 0.3193319 0.3304397 0.4008319 0.4476422
                  8419
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                                      8421
                                                8422
                                                           8423
                                                                     8424
                                                                               8425
## Cluster 1 0.4682732 0.5193236 0.6035411 0.6362812 0.6925159 0.7051366 0.7194549
## Cluster 2 0.4723050 0.4189501 0.3764047 0.3785689 0.3968974 0.3992405 0.3860909
## Cluster 3 0.3884695 0.4210695 0.4397972 0.4681348 0.5382340 0.5925730 0.5969617
## Cluster 4 0.7655126 0.7202852 0.6667184 0.6057545 0.6359675 0.5819567 0.6017509
## Cluster 5 0.4602026 0.4822672 0.4565000 0.5067888 0.4633621 0.4914526 0.5064267
                                                           8430
                  8426
                            8427
                                      8428
                                                8429
                                                                     8431
## Cluster 1 0.7398462 0.7446552 0.7617520 0.8016326 0.7345265 0.6573899 0.6849443
## Cluster 2 0.4041730 0.4090323 0.4416334 0.4559883 0.4764692 0.4317302 0.4137155
## Cluster 3 0.6442837 0.6985617 0.7162411 0.8122440 0.7662766 0.7702000 0.8037560
## Cluster 4 0.6409639 0.6279603 0.6351480 0.6242708 0.6072708 0.5731661 0.6083069
## Cluster 5 0.5034957 0.5175043 0.5320129 0.5088233 0.5121078 0.5509871 0.5253233
                  8433
                            8434
                                      8435
                                                8436
                                                           8437
                                                                    8438
                                                                              8439
## Cluster 1 0.7092347 0.7641645 0.8608501 1.0598395 1.2715292 1.441810 1.3781472
## Cluster 2 0.4968592 0.4511496 0.4957537 0.6571085 0.8464780 1.033056 1.2512786
## Cluster 3 0.7840553 0.8570624 0.9566468 1.1167121 1.1854014 1.275264 1.2725745
## Cluster 4 0.6324513 0.7299711 0.8345560 0.9598953 1.1101264 1.092083 1.0190036
## Cluster 5 0.5585474 0.5271164 0.5836940 0.6974957 0.8309138 0.927931 0.9816638
##
                  8440
                            8441
                                      8442
                                                8443
                                                           8444
                                                                     8445
                                                                               8446
## Cluster 1 1.2461061 1.1960080 1.1525531 1.1425889 1.0965000 1.0361976 0.9239761
## Cluster 2 1.2803314 1.2765953 1.2854868 1.2223959 1.2908240 1.1935543 1.1716716
## Cluster 3 1.1558199 1.1869589 1.1318468 1.1394099 1.1317986 1.1071617 1.0649915
## Cluster 4 0.9523718 0.9329711 0.9283574 0.9554477 0.9625776 0.8662419 0.7796534
## Cluster 5 1.0146422 1.0047543 1.0487931 1.0970948 0.9904569 0.9855086 1.0041466
##
                  8447
                            8448
                                      8449
                                                8450
                                                           8451
                                                                     8452
                                                                               8453
```

```
## Cluster 1 0.8621565 0.7541233 0.6437427 0.5388634 0.4072931 0.3124390 0.2546485
## Cluster 2 0.9947331 0.8807419 0.8235806 0.6321994 0.4492317 0.3550499 0.2831848
## Cluster 3 0.9890865 0.8948113 0.8329078 0.7702043 0.6410383 0.5270099 0.4076227
## Cluster 4 0.7248159 0.6669783 0.5856173 0.4907437 0.4123646 0.3640000 0.3341480
## Cluster 5 1.0311595 0.9720560 0.9941767 0.9326509 0.8048448 0.7050431 0.6230647
                                                           8458
                  8454
                            8455
                                      8456
                                                8457
                                                                     8459
## Cluster 1 0.2298117 0.1987785 0.1882427 0.1771167 0.1762003 0.1781870 0.1845345
## Cluster 2 0.2458622 0.2010352 0.1906921 0.1855367 0.1856598 0.1890352 0.1839150
## Cluster 3 0.3672227 0.3093986 0.2653348 0.2494170 0.2306440 0.2211858 0.2207830
## Cluster 4 0.3227726 0.2842671 0.2945271 0.2901444 0.2936787 0.2946787 0.3148339
  Cluster 5 0.5142371 0.4263578 0.4128966 0.3669052 0.3236250 0.3168879 0.3028966
                            8462
                  8461
                                      8463
                                                8464
                                                           8465
                                                                     8466
                                                                               8467
## Cluster 1 0.1830464 0.1963103 0.2143767 0.2605955 0.3330438 0.4143342 0.4825279
## Cluster 2 0.1908387 0.2361994 0.2490381 0.2974370 0.4299267 0.4458710 0.4891994
## Cluster 3 0.2219447 0.2248809 0.2553773 0.2881050 0.3323106 0.3637972 0.4210411
## Cluster 4 0.3012563 0.3464296 0.4176390 0.5261733 0.6150866 0.7739134 0.7247292
## Cluster 5 0.3165776 0.2930948 0.3250603 0.3492716 0.4236983 0.4508836 0.4341336
##
                  8468
                            8469
                                      8470
                                                8471
                                                           8472
                                                                     8473
                                                                               8474
## Cluster 1 0.5497586 0.6006393 0.6422414 0.6516141 0.6908236 0.7191605 0.6993859
## Cluster 2 0.4312845 0.3992933 0.3885308 0.3655718 0.3792581 0.4059765 0.4206510
## Cluster 3 0.4540383 0.4388397 0.4849277 0.5309688 0.5677206 0.5997433 0.6125645
## Cluster 4 0.6777581 0.6995993 0.6220975 0.6484549 0.6921697 0.6752816 0.5945343
## Cluster 5 0.4455431 0.4367371 0.4669138 0.4799784 0.4289224 0.4607888 0.5331078
                  8475
                            8476
                                      8477
                                                8478
                                                           8479
                                                                     8480
## Cluster 1 0.7477454 0.8191353 0.8264390 0.8197653 0.7763342 0.7635398 0.7824403
## Cluster 2 0.4038152 0.4557889 0.5290059 0.4948387 0.4607507 0.4569003 0.4499296
## Cluster 3 0.6829050 0.7405333 0.8099816 0.7585106 0.7691688 0.7692213 0.8276624
## Cluster 4 0.6670903 0.6647906 0.6416354 0.6579025 0.6414224 0.5929170 0.6679061
## Cluster 5 0.5194871 0.5680991 0.5511034 0.5719784 0.6205172 0.6398060 0.6398147
                  8482
                            8483
                                      8484
                                                8485
                                                         8486
                                                                    8487
                                                                              8488
## Cluster 1 0.7975584 0.9089960 1.0809881 1.2955252 1.364829 1.3853103 1.2639602
## Cluster 2 0.4398123 0.5292757 0.6730528 0.8716891 1.014375 1.1432757 1.2524018
## Cluster 3 0.8367773 0.9230397 1.0508340 1.1876454 1.249329 1.2374667 1.2077319
## Cluster 4 0.7300397 0.7806209 0.8263574 1.0054260 1.115621 1.0918014 0.9652563
## Cluster 5 0.6477845 0.6589612 0.7560129 0.9216336 1.018728 0.9999526 1.0130690
                  8489
                            8490
                                      8491
                                                8492
                                                           8493
                                                                     8494
## Cluster 1 1.2478143 1.1842414 1.1566459 1.1279483 1.0219894 0.9332891 0.8327202
## Cluster 2 1.3051378 1.3261408 1.2976012 1.2540235 1.1515894 1.1161437 1.0344575
## Cluster 3 1.1811504 1.1574865 1.1094128 1.0857461 1.0651121 1.0817348 1.0195844
## Cluster 4 0.9628700 0.9010289 0.8994585 0.8946209 0.8841408 0.7769495 0.7527834
## Cluster 5 0.9945172 0.9754095 0.9805474 0.9515129 1.0427155 1.0290991 1.0124095
                  8496
                            8497
                                      8498
                                                8499
                                                           8500
                                                                     8501
                                                                               8502
## Cluster 1 0.7494801 0.6288462 0.5082281 0.3847719 0.2697202 0.2336180 0.2085252
## Cluster 2 0.8703167 0.7363607 0.5940411 0.4418211 0.3549208 0.2908387 0.2381730
## Cluster 3 0.9300170 0.8690213 0.7499660 0.6152993 0.5134851 0.4139234 0.3510170
## Cluster 4 0.6454585 0.5621877 0.4914874 0.4026498 0.3732888 0.3347329 0.3224260
## Cluster 5 0.9483966 0.9438707 0.9124267 0.7977759 0.6510991 0.5986078 0.4990948
                  8503
                            8504
                                                8506
                                                           8507
                                                                     8508
##
                                      8505
                                                                               8509
## Cluster 1 0.1937467 0.1793780 0.1844536 0.1725650 0.1738024 0.1824085 0.1858156
## Cluster 2 0.2042991 0.1905279 0.1838358 0.1821114 0.1796012 0.1812053 0.1847654
## Cluster 3 0.3092780 0.2890809 0.2580184 0.2539929 0.2426411 0.2461390 0.2363674
## Cluster 4 0.2967184 0.2890072 0.2928881 0.3141661 0.3105090 0.3159206 0.3295307
## Cluster 5 0.4287716 0.3887457 0.3522198 0.3190647 0.3330216 0.3181983 0.3038707
##
                  8510
                            8511
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```

```
## Cluster 1 0.1973966 0.2178249 0.2634218 0.3765902 0.4776963 0.5114390 0.5691923
## Cluster 2 0.2190147 0.2388240 0.3120616 0.3629150 0.5138974 0.5287478 0.5101378
## Cluster 3 0.2401504 0.2546340 0.2874057 0.3271716 0.4099887 0.4362553 0.4502766
## Cluster 4 0.3783538 0.4318664 0.5230866 0.6767762 0.8219206 0.7995271 0.7136751
## Cluster 5 0.3253707 0.3445991 0.3490086 0.4478060 0.4567284 0.5328405 0.5282759
                            8518
                                      8519
                                                8520
                                                          8521
                                                                     8522
                  8517
## Cluster 1 0.5995743 0.6855159 0.6266207 0.6897122 0.7130398 0.6911061 0.6585093
## Cluster 2 0.4059179 0.4125543 0.3631232 0.3870909 0.4038446 0.3797595 0.3821261
## Cluster 3 0.4595504 0.4915518 0.5522624 0.5920355 0.6439801 0.6186596 0.6755106
## Cluster 4 0.6616065 0.6569747 0.6234874 0.6493502 0.6020433 0.6530217 0.6369819
  Cluster 5 0.4598017 0.4659957 0.5410603 0.4991638 0.5634397 0.4978017 0.5193836
                  8524
                            8525
                                      8526
                                                8527
                                                           8528
                                                                     8529
## Cluster 1 0.7642931 0.7537374 0.7149655 0.6883700 0.7376141 0.7957122 0.8130000
## Cluster 2 0.4259619 0.4917067 0.4333695 0.4219707 0.4189003 0.4703783 0.4832903
## Cluster 3 0.7505021 0.7756355 0.8160028 0.7573376 0.7938057 0.8294837 0.8156383
## Cluster 4 0.6276426 0.6165090 0.5981227 0.6526715 0.5689747 0.5320578 0.6469278
## Cluster 5 0.5705259 0.5804397 0.5292457 0.5748103 0.5039138 0.5162241 0.5220733
##
                  8531
                            8532
                                      8533
                                                8534
                                                           8535
                                                                     8536
                                                                               8537
## Cluster 1 0.8916366 1.1344178 1.3366751 1.3981260 1.3515000 1.2605889 1.2394589
## Cluster 2 0.5532991 0.6731261 0.8799032 1.0856540 1.2638240 1.2089062 1.2842053
## Cluster 3 0.9155376 1.0261121 1.1657291 1.2212652 1.2385688 1.1979730 1.1467532
## Cluster 4 0.7703755 0.9913682 1.0120722 1.0160253 1.0634152 0.9803755 0.8998484
## Cluster 5 0.5901336 0.6952371 0.8374310 0.9383405 0.9625086 1.0180690 1.0412371
                  8538
                            8539
                                      8540
                                                8541
                                                           8542
                                                                     8543
## Cluster 1 1.1546804 1.1180968 1.0501883 0.9824655 0.8872374 0.8386711 0.7340836
## Cluster 2 1.2401789 1.1897537 1.0782463 1.0513490 1.0273284 0.9648446 0.8416569
## Cluster 3 1.0974965 1.0531220 1.0579631 1.0776468 1.0169844 0.9753617 0.9033660
## Cluster 4 0.8812924 0.8195090 0.8338412 0.7910794 0.7895632 0.7071119 0.6581588
## Cluster 5 1.0038922 0.9747543 0.9912457 1.0233405 1.0446681 1.0162069 0.9196250
##
                  8545
                            8546
                                      8547
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                                                           8549
                                                                     8550
                                                                               8551
## Cluster 1 0.6639907 0.5159377 0.3963820 0.3003621 0.2430146 0.2151724 0.1971684
## Cluster 2 0.7390293 0.5643548 0.4375718 0.3202493 0.2678944 0.2200762 0.2034018
## Cluster 3 0.8629291 0.7536667 0.6136766 0.5247745 0.4206085 0.3644837 0.3161489
## Cluster 4 0.5868700 0.5300650 0.4392022 0.3876715 0.3588051 0.3339747 0.3077509
## Cluster 5 0.9822845 0.8635862 0.7676810 0.6896509 0.5891552 0.4959138 0.4111121
                            8553
                                      8554
                                                8555
                                                          8556
                  8552
                                                                     8557
## Cluster 1 0.1829350 0.1729111 0.1705225 0.1812003 0.1845981 0.1785769 0.1897361
## Cluster 2 0.1877009 0.1904106 0.1823842 0.1790499 0.1841466 0.2065982 0.2260147
## Cluster 3 0.2858525 0.2662426 0.2550426 0.2482794 0.2488865 0.2439816 0.2551730
## Cluster 4 0.2961588 0.2949025 0.3334513 0.3174693 0.3294188 0.3522744 0.4075740
## Cluster 5 0.3832026 0.3669784 0.3361681 0.3167241 0.3092672 0.3240043 0.3398319
                  8559
                            8560
                                      8561
                                                8562
                                                                     8564
                                                          8563
                                                                               8565
## Cluster 1 0.2128926 0.2548846 0.3454894 0.4468263 0.5060477 0.5280915 0.5923581
## Cluster 2 0.2673607 0.3358974 0.3985191 0.4992170 0.4971818 0.4864545 0.4123754
## Cluster 3 0.2784752 0.3018369 0.3548738 0.3958255 0.4420326 0.4700227 0.4739915
## Cluster 4 0.4343791 0.5367473 0.6601805 0.8868014 0.7531047 0.6662527 0.6739458
## Cluster 5 0.3362543 0.3387500 0.4218233 0.4857284 0.5345129 0.5713362 0.5275819
                            8567
                                      8568
                                                8569
                                                           8570
##
                  8566
                                                                     8571
                                                                               8572
## Cluster 1 0.6306950 0.6766592 0.6881512 0.6990305 0.6800464 0.6828170 0.7239721
## Cluster 2 0.4152727 0.4741056 0.4452463 0.3871789 0.3785425 0.3756188 0.4293431
## Cluster 3 0.5278794 0.6066567 0.5950340 0.6575986 0.6413957 0.7097021 0.7049617
## Cluster 4 0.6680794 0.6397798 0.5846173 0.5886245 0.6006823 0.5680686 0.5489386
## Cluster 5 0.5168190 0.5205043 0.5503664 0.5475172 0.5525517 0.4964914 0.4926466
##
                  8573
                            8574
                                      8575
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                                                                     8578
                                                                               8579
```

```
## Cluster 1 0.7614828 0.7441631 0.6579443 0.6734363 0.6967095 0.7376777 0.8228780
## Cluster 2 0.4197243 0.4402874 0.4306598 0.3849824 0.4013255 0.4830411 0.5213021
## Cluster 3 0.7588383 0.7418270 0.7137645 0.7136028 0.7362312 0.8169390 0.8909560
## Cluster 4 0.5987834 0.6053177 0.5739531 0.6499783 0.6911011 0.6931516 0.7767834
## Cluster 5 0.5443362 0.5178879 0.5514267 0.5210000 0.5215216 0.5211983 0.5771897
                            8581
                                      8582
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                                                                    8585
                  8580
                                                8583
                                                                              8586
## Cluster 1 1.0155875 1.2304523 1.3625212 1.3344496 1.2586910 1.217700 1.1769204
## Cluster 2 0.6331818 0.8181144 1.0617654 1.1399795 1.2415425 1.232956 1.1973255
## Cluster 3 1.0390057 1.1791362 1.2089844 1.2217546 1.2060468 1.168061 1.1684837
## Cluster 4 0.8293899 1.0077581 0.9723718 1.0106029 0.9751805 0.987083 0.9475957
  Cluster 5 0.6772759 0.8085819 0.9314957 0.9302241 1.0229698 1.018224 1.0295129
                  8587
                            8588
                                      8589
                                                8590
                                                           8591
                                                                     8592
                                                                               8593
## Cluster 1 1.1081313 1.0398156 1.0016870 0.9124576 0.8390332 0.7680756 0.6915690
## Cluster 2 1.1808710 1.1407977 1.0760880 1.0436305 0.9906774 0.9507126 0.8522874
## Cluster 3 1.0861972 1.0489277 1.0569447 0.9873957 0.9572752 0.9178766 0.8720667
## Cluster 4 0.8772924 0.8228520 0.8657401 0.8362202 0.7514296 0.6901661 0.6199422
## Cluster 5 1.0077716 0.9595603 1.0145216 0.9860388 0.9578276 0.9543621 1.0185948
##
                  8594
                            8595
                                      8596
                                                8597
                                                           8598
                                                                     8599
                                                                               8600
## Cluster 1 0.6312586 0.4936698 0.3780066 0.3067215 0.2691658 0.2368090 0.2209549
## Cluster 2 0.7369208 0.6014370 0.4449032 0.3510880 0.2823490 0.2471935 0.2154868
## Cluster 3 0.8226085 0.7694936 0.6610567 0.5461433 0.4731035 0.4039589 0.3647305
## Cluster 4 0.5654007 0.5011516 0.4272527 0.3816679 0.3553827 0.3438953 0.3549639
## Cluster 5 0.9352716 0.8726638 0.7761509 0.7085129 0.6014741 0.5212155 0.4781379
                  8601
                            8602
                                      8603
                                                8604
                                                           8605
                                                                     8606
## Cluster 1 0.2092308 0.2038780 0.2010225 0.2021804 0.2027122 0.2069111 0.2142162
## Cluster 2 0.2228622 0.2137214 0.1924692 0.1943783 0.1967947 0.1999208 0.2176628
## Cluster 3 0.3360851 0.3061433 0.3019220 0.2791064 0.2743745 0.2792128 0.2826440
## Cluster 4 0.3373357 0.3363321 0.3452780 0.3746534 0.3774404 0.4197653 0.4385307
## Cluster 5 0.4384914 0.4040647 0.3920302 0.3865474 0.3747241 0.3579871 0.3408750
##
                  8608
                            8609
                                      8610
                                                8611
                                                           8612
                                                                     8613
                                                                               8614
## Cluster 1 0.2314416 0.2592812 0.3098674 0.3447268 0.4534403 0.5767016 0.7099111
## Cluster 2 0.2663754 0.2871232 0.3147419 0.3542757 0.4047185 0.4498768 0.5370821
## Cluster 3 0.2864340 0.2992709 0.3160426 0.3575872 0.4145078 0.4722426 0.5543489
## Cluster 4 0.4852130 0.5163321 0.6216570 0.6664765 0.6657004 0.7038051 0.7620108
  Cluster 5 0.3685129 0.3927759 0.4310431 0.4970819 0.4867241 0.5255603 0.5676638
                                                           8619
                  8615
                            8616
                                      8617
                                                8618
                                                                     8620
## Cluster 1 0.7878369 0.8460186 0.9442440 0.8990928 0.9416167 0.9256552 0.8966074
## Cluster 2 0.5803871 0.6017361 0.6213343 0.6701144 0.6786041 0.7178475 0.7422933
## Cluster 3 0.6391191 0.7790397 0.7858383 0.8648355 0.9016383 0.8971234 0.9524043
## Cluster 4 0.7307581 0.7300758 0.6921480 0.7288989 0.7617798 0.7628267 0.8065921
## Cluster 5 0.5712500 0.5740733 0.7034138 0.6848750 0.6693233 0.7103448 0.7218319
                  8622
                            8623
                                      8624
                                                8625
                                                           8626
                                                                     8627
                                                                               8628
## Cluster 1 0.8899947 0.8761114 0.8352387 0.8312056 0.8843355 0.9984655 1.1183422
## Cluster 2 0.7459971 0.7161173 0.6838739 0.7268240 0.7528534 0.7711935 0.8869384
## Cluster 3 0.9611801 0.9363872 0.8995546 0.9318199 0.9375872 1.0364965 1.1252894
## Cluster 4 0.7574368 0.7046245 0.7551155 0.6788159 0.7777726 0.8270650 0.9450830
## Cluster 5 0.7196509 0.7300517 0.7307500 0.6968060 0.7719267 0.7921250 0.8276724
                           8630
                                                        8633
##
                  8629
                                    8631
                                             8632
                                                                  8634
                                                                            8635
## Cluster 1 1.3466578 1.494202 1.387659 1.299354 1.2137387 1.1698833 1.1292228
## Cluster 2 1.0744663 1.247352 1.294733 1.388015 1.3904721 1.2497478 1.2106950
## Cluster 3 1.2222794 1.291255 1.263857 1.251475 1.2018780 1.1912894 1.1280780
## Cluster 4 1.0523827 1.102877 1.047188 1.001412 0.9799025 0.9336534 0.8456209
## Cluster 5 0.9217371 1.050802 1.143095 1.128478 1.1780086 1.1424267 1.0635819
##
                  8636
                            8637
                                      8638
                                                8639
                                                           8640
                                                                     8641
```

```
## Cluster 1 1.0188395 0.9571154 0.8726088 0.8188820 0.7433687 0.7062851 0.6124496
## Cluster 2 1.1277918 1.0835279 1.0027214 0.9693724 0.9153871 0.8350176 0.7034956
## Cluster 3 1.1439404 1.0945915 1.0337603 0.9908638 0.9672014 0.9191532 0.8642397
## Cluster 4 0.8706137 0.8150289 0.7952599 0.7576931 0.6391191 0.6115307 0.5752383
## Cluster 5 1.0606078 1.0492759 1.0379612 1.0060690 0.9744569 0.9663621 0.9934224
                  8643
                                      8645
                                                           8647
##
                            8644
                                                8646
                                                                     8648
## Cluster 1 0.5393024 0.4245570 0.3376141 0.2979456 0.2620239 0.2327334 0.2195292
## Cluster 2 0.6073372 0.5204047 0.4322903 0.3625015 0.3060264 0.2875630 0.2774575
## Cluster 3 0.7563943 0.6363078 0.5586709 0.4693362 0.4150965 0.3734950 0.3564227
## Cluster 4 0.4991733 0.4319819 0.3867978 0.3908159 0.3477292 0.3314440 0.3264260
  Cluster 5 0.8961940 0.8019828 0.7163578 0.6570043 0.5831078 0.5449698 0.5058147
                  8650
                                      8652
                            8651
                                                8653
                                                           8654
                                                                     8655
                                                                               8656
## Cluster 1 0.2188037 0.2148223 0.2030570 0.2061525 0.2078117 0.2145318 0.2323767
## Cluster 2 0.2597654 0.2450792 0.2383167 0.2307185 0.2248680 0.2345484 0.2736481
## Cluster 3 0.3191759 0.2993121 0.2880085 0.2819660 0.2763830 0.2849007 0.2813007
## Cluster 4 0.3559350 0.3467509 0.3450325 0.3542816 0.3683249 0.4267473 0.4454765
## Cluster 5 0.4515474 0.4664224 0.4074612 0.4142026 0.4020259 0.4280259 0.3943362
##
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                            8658
                                      8659
                                                8660
                                                           8661
                                                                     8662
                                                                               8663
## Cluster 1 0.2522202 0.2838408 0.3213607 0.4054456 0.5546830 0.6971194 0.7733621
## Cluster 2 0.2729795 0.2862669 0.3258680 0.3925425 0.4741496 0.5192991 0.6081613
## Cluster 3 0.3140582 0.3196766 0.3616723 0.4061972 0.4708865 0.5544043 0.5941986
## Cluster 4 0.4606534 0.5095523 0.6215632 0.6982599 0.7289747 0.8067581 0.8182130
## Cluster 5 0.3905086 0.4185345 0.4798664 0.4710388 0.4882026 0.5733879 0.5789440
                  8664
                            8665
                                      8666
                                                8667
                                                           8668
                                                                     8669
## Cluster 1 0.8715915 0.9464589 0.9717546 1.0755836 1.1105836 1.1031578 1.0612507
## Cluster 2 0.6357977 0.7044223 0.7372903 0.7999384 0.7444897 0.7524487 0.8099971
## Cluster 3 0.6967050 0.7727844 0.8969716 0.9778213 1.0188440 1.0805447 1.1195986
## Cluster 4 0.7937617 0.8574585 0.8202202 0.8923394 0.9108123 0.9100108 0.8951336
## Cluster 5 0.6206379 0.6530000 0.6645862 0.6875172 0.7021767 0.7135690 0.7701853
##
                  8671
                            8672
                                      8673
                                                8674
                                                           8675
                                                                     8676
                                                                              8677
## Cluster 1 1.0756061 1.0013859 0.9851366 0.9980650 1.0395570 1.1350119 1.272077
## Cluster 2 0.8220674 0.7861613 0.8091965 0.8534633 0.9150792 0.9914399 1.143446
## Cluster 3 1.1554879 1.1082014 1.0369603 1.0634170 1.1519121 1.1562823 1.197939
## Cluster 4 0.8836679 0.8987581 0.8768087 0.9243032 1.0058736 1.0290614 1.108148
## Cluster 5 0.7241552 0.6653190 0.6867586 0.7558534 0.7973103 0.8733621 1.046022
                 8678
                          8679
                                   8680
                                             8681
                                                       8682
                                                                  8683
## Cluster 1 1.314739 1.287374 1.197248 1.1078183 1.0384854 0.9785080 0.9622507
## Cluster 2 1.235903 1.319079 1.229264 1.2020909 1.1759560 1.0801760 1.0409501
## Cluster 3 1.210356 1.211309 1.159528 1.1224496 1.1199504 1.0806965 1.0760511
## Cluster 4 1.085191 1.075859 0.946769 0.9627112 0.9388484 0.8772094 0.8186354
## Cluster 5 1.097556 1.077099 1.045224 1.0291853 0.9728707 0.9364957 0.9454828
                  8685
                            8686
                                      8687
                                                8688
                                                           8689
                                                                     8690
## Cluster 1 0.9147971 0.8753024 0.7650875 0.6809231 0.6176127 0.5149867 0.4066711
## Cluster 2 1.0421584 1.0212669 0.9380381 0.8419062 0.7395718 0.6138856 0.5090440
## Cluster 3 1.0526823 0.9962000 0.9378227 0.9028865 0.8390369 0.7479348 0.6434965
## Cluster 4 0.8233032 0.8167076 0.7565993 0.6566282 0.5860361 0.4532960 0.3982888
## Cluster 5 1.0090216 1.0378879 1.0384181 0.9753922 0.9923103 1.0022931 0.8492198
                            8693
                                      8694
                                                           8696
                                                                     8697
##
                  8692
                                                8695
                                                                               8698
## Cluster 1 0.3312082 0.2617838 0.2310279 0.2076618 0.1998249 0.1987772 0.1961273
## Cluster 2 0.3972493 0.3391437 0.2604575 0.2360968 0.2105425 0.2041173 0.2012669
## Cluster 3 0.5367348 0.4450270 0.3885404 0.3469447 0.3068355 0.2907305 0.2735234
## Cluster 4 0.3629783 0.3188484 0.2991769 0.2954404 0.3033177 0.2996787 0.3081444
## Cluster 5 0.7311422 0.6415000 0.5201034 0.4628491 0.4269310 0.4088319 0.3617888
##
                  8699
                            8700
                                      8701
                                                8702
                                                           8703
                                                                     8704
                                                                               8705
```

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## Cluster 1 0.1918660 0.1952905 0.1901114 0.2009019 0.2209483 0.2584775 0.3539867
## Cluster 2 0.1987478 0.1990205 0.2074751 0.2438446 0.2537331 0.3171613 0.3426100
## Cluster 3 0.2695149 0.2641163 0.2733972 0.2629504 0.2819816 0.3048255 0.3637121
## Cluster 4 0.3277040 0.3322527 0.3460253 0.3624224 0.4260181 0.5352960 0.6221733
## Cluster 5 0.3480517 0.3447069 0.3354181 0.3515690 0.3825560 0.3461422 0.4350991
                  8706
                            8707
                                      8708
                                                8709
                                                          8710
                                                                     8711
## Cluster 1 0.4233289 0.4665915 0.5393475 0.5629509 0.6514443 0.6710225 0.6988462
## Cluster 2 0.4094780 0.4433167 0.4692962 0.4500469 0.4347771 0.4116041 0.4035865
## Cluster 3 0.3875163 0.4145560 0.4385631 0.4849702 0.5204794 0.5529064 0.6308865
## Cluster 4 0.7599928 0.7526534 0.7284260 0.6544801 0.6810000 0.5970975 0.6011336
  Cluster 5 0.4652845 0.5057802 0.4871983 0.4931595 0.4841595 0.4893319 0.5364871
                            8714
                  8713
                                      8715
                                                8716
                                                                     8718
                                                           8717
                                                                               8719
## Cluster 1 0.7393395 0.6938143 0.7507135 0.8033475 0.8257294 0.8294138 0.7900451
## Cluster 2 0.4225543 0.4320762 0.4475543 0.4589384 0.5044809 0.4508504 0.4099531
## Cluster 3 0.6485730 0.7068638 0.7950681 0.8202255 0.8746298 0.8433504 0.8715305
## Cluster 4 0.5878303 0.5786209 0.6948700 0.6639675 0.6605487 0.6450433 0.5530325
## Cluster 5 0.5874914 0.5843147 0.6020991 0.5834784 0.5672629 0.5834181 0.5964138
##
                  8720
                            8721
                                      8722
                                                8723
                                                           8724
                                                                     8725
                                                                               8726
## Cluster 1 0.7751406 0.7844058 0.7989218 0.8858289 1.0601592 1.2583462 1.4120438
## Cluster 2 0.4116452 0.4623167 0.4777977 0.5211290 0.6236276 0.7823783 1.0497097
## Cluster 3 0.8595461 0.8406113 0.8564752 0.9350369 1.0246794 1.1681050 1.2505092
## Cluster 4 0.5763394 0.6523863 0.7229928 0.8059639 0.8972022 1.0790975 1.0664801
## Cluster 5 0.6114828 0.6640345 0.6529353 0.6318879 0.7755647 0.8752241 0.9378707
                  8727
                            8728
                                      8729
                                                8730
                                                           8731
                                                                     8732
## Cluster 1 1.3587520 1.2418355 1.1562997 1.1438143 1.0492599 0.9833011 0.9657255
## Cluster 2 1.2227361 1.1892317 1.2727331 1.2282023 1.1786129 1.1056716 1.0387155
## Cluster 3 1.2227631 1.1597376 1.1534638 1.1391007 1.0922993 1.0731560 1.0919475
## Cluster 4 0.9847401 0.9659134 0.9358845 0.8684874 0.9229206 0.8472924 0.8817148
## Cluster 5 0.9701638 0.9840647 1.0195388 0.9910560 0.9785216 0.9714483 0.9649181
##
                  8734
                            8735
                                      8736
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                                                           8738
                                                                     8739
                                                                               8740
## Cluster 1 0.8697520 0.7609218 0.6623740 0.6029191 0.4708369 0.3748342 0.2814178
## Cluster 2 0.9749707 0.9583724 0.8170528 0.6847185 0.5276540 0.4071290 0.3267126
## Cluster 3 1.0147617 0.9658340 0.8988780 0.8489021 0.7127106 0.5983121 0.4934440
## Cluster 4 0.7545415 0.6991155 0.6382419 0.5382347 0.4694838 0.4039819 0.3429458
## Cluster 5 0.9898578 0.9752629 0.9226552 0.9153190 0.8730474 0.7396034 0.6875819
                  8741
                            8742
                                      8743
                                                8744
                                                          8745
                                                                     8746
## Cluster 1 0.2412851 0.2118422 0.1990318 0.1815464 0.1787241 0.1741631 0.1762586
## Cluster 2 0.2604047 0.2187918 0.2061437 0.1999912 0.1842346 0.1748211 0.1726217
## Cluster 3 0.4078199 0.3401929 0.2979617 0.2902298 0.2665121 0.2567277 0.2498071
## Cluster 4 0.3183032 0.2980903 0.2850686 0.2859061 0.2682780 0.2756606 0.2943285
## Cluster 5 0.5944095 0.4776164 0.4406078 0.3700129 0.3495819 0.3172241 0.3206509
                  8748
                            8749
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                                                8751
                                                          8752
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                                                                               8754
## Cluster 1 0.1794403 0.1826751 0.1961088 0.2151631 0.2802918 0.3493554 0.4530292
## Cluster 2 0.1738211 0.1902141 0.2252727 0.2496246 0.3267185 0.4485806 0.4865279
## Cluster 3 0.2465447 0.2484496 0.2673007 0.2868837 0.3144128 0.3797433 0.4361277
## Cluster 4 0.3354079 0.3286498 0.3682058 0.4729097 0.6019458 0.7467256 0.8024982
## Cluster 5 0.2996595 0.2998966 0.3185905 0.3373017 0.3405431 0.4556983 0.4791681
                  8755
                            8756
                                      8757
                                                8758
                                                           8759
                                                                     8760
##
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## Cluster 1 0.5282056 0.5356260 0.5859973 0.6313793 0.7209668 0.7061764 0.7426804
## Cluster 2 0.5650792 0.4331114 0.4041408 0.4134194 0.3464223 0.3466070 0.3303519
## Cluster 3 0.4892723 0.5170908 0.5189262 0.5266894 0.5584128 0.6281021 0.6508908
## Cluster 4 0.7608989 0.6119639 0.5946282 0.6142708 0.5552744 0.5590758 0.5427906
## Cluster 5 0.5015517 0.4987543 0.4684009 0.4501940 0.4667155 0.4718276 0.5064871
##
                  8762
                            8763
                                      8764
                                                8765
                                                          8766
                                                                     8767
```

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## Cluster 1 0.7470623 0.7459881 0.8080531 0.8128660 0.7447162 0.7767361 0.7621897
## Cluster 2 0.3660792 0.3546862 0.3780029 0.4076217 0.4392346 0.4306774 0.4467155
## Cluster 3 0.7060936 0.7434369 0.7746624 0.8199050 0.7846270 0.7846397 0.8125007
## Cluster 4 0.6033177 0.5972816 0.6563285 0.6344116 0.5723827 0.5969783 0.6188592
## Cluster 5 0.5117716 0.5606336 0.5673147 0.5999957 0.5615560 0.5692457 0.5209569
                  8769
                                                           8773
                            8770
                                      8771
                                                8772
                                                                     8774
## Cluster 1 0.7932016 0.8404828 0.9450345 1.1493528 1.3480690 1.4237056 1.3331406
## Cluster 2 0.4495161 0.4659941 0.5838534 0.6713050 0.8192639 1.0005894 1.1776188
## Cluster 3 0.8546099 0.9144043 1.0242809 1.1431021 1.1720043 1.1653603 1.1984000
## Cluster 4 0.6306787 0.6847834 0.7860722 0.9214368 0.9740397 1.0207148 1.0888917
  Cluster 5 0.5677155 0.6308879 0.6659095 0.6879741 0.8289957 0.9079871 0.9534871
                  8776
                            8777
                                     8778
                                               8779
                                                         8780
                                                                    8781
                                                                              8782
## Cluster 1 1.2245040 1.1948515 1.193939 1.1228607 1.0571459 0.9445836 0.8959947
## Cluster 2 1.1927713 1.2097097 1.179994 1.1925806 1.1437067 1.1180528 1.0883812
## Cluster 3 1.1362099 1.1839376 1.123153 1.1160312 1.0387901 1.0562142 1.0249234
## Cluster 4 0.9431083 0.9008809 0.850870 0.8977184 0.8273899 0.7918123 0.7654079
## Cluster 5 0.9952629 0.9946207 1.009414 0.9237414 0.8973362 0.9488793 0.9797155
##
                  8783
                            8784
                                      8785
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                                                           8787
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                                                                               8789
## Cluster 1 0.7921008 0.6568090 0.5643462 0.4599469 0.3338846 0.2663183 0.2163767
## Cluster 2 0.9754927 0.8443812 0.6976628 0.5337595 0.3757390 0.2973050 0.2509032
## Cluster 3 0.9724170 0.9062780 0.7964667 0.6949121 0.5698809 0.4594113 0.3752057
## Cluster 4 0.6939928 0.5903538 0.5339386 0.4596029 0.3868917 0.3144765 0.3067076
## Cluster 5 1.0288707 0.9074440 0.9182629 0.8955431 0.7404440 0.6052716 0.5022112
                  8790
                            8791
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                                                8793
                                                           8794
                                                                     8795
## Cluster 1 0.1978992 0.1833515 0.1750027 0.1721406 0.1692533 0.1645557 0.1747480
## Cluster 2 0.2123636 0.1875836 0.1700762 0.1690997 0.1614457 0.1595220 0.1635337
## Cluster 3 0.3031773 0.2711943 0.2564440 0.2598695 0.2459035 0.2252624 0.2314085
## Cluster 4 0.2817040 0.2569061 0.2500144 0.2517617 0.2635379 0.2720578 0.2966606
## Cluster 5 0.4220862 0.3692629 0.3214741 0.3081379 0.2764397 0.2791983 0.2649483
##
                  8797
                            8798
                                      8799
                                                8800
                                                           8801
                                                                     8802
                                                                               8803
## Cluster 1 0.1736141 0.1757944 0.2115517 0.2653183 0.4449058 0.5941923 0.6069801
## Cluster 2 0.1699619 0.2190411 0.2484164 0.3500000 0.4603343 0.5551026 0.5261613
## Cluster 3 0.2363390 0.2497574 0.2706511 0.3101319 0.3838908 0.4553957 0.5515504
## Cluster 4 0.2704260 0.3291336 0.3855415 0.6111264 0.7475090 0.8829242 0.8119567
## Cluster 5 0.2877974 0.3009310 0.3162069 0.3274440 0.4290216 0.5131552 0.5373233
                  8804
                            8805
                                                           8088
                                      8806
                                                8807
                                                                     8809
## Cluster 1 0.6297706 0.5903700 0.5958090 0.6155610 0.6398820 0.6268767 0.6187653
## Cluster 2 0.4467537 0.3570850 0.3683314 0.3342874 0.3121496 0.3111701 0.2993754
## Cluster 3 0.5626326 0.5026454 0.5158000 0.5194270 0.5408596 0.5936809 0.6024709
## Cluster 4 0.7162744 0.6124910 0.6141083 0.5413213 0.4702383 0.5213105 0.4805632
## Cluster 5 0.4965776 0.4604828 0.4258017 0.4207845 0.4234957 0.4308534 0.4191422
                  8811
                            8812
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                                                8814
                                                           8815
                                                                     8816
                                                                               8817
## Cluster 1 0.6438249 0.6328355 0.6325451 0.6386326 0.5902228 0.5956764 0.6469761
## Cluster 2 0.3308944 0.3236628 0.3492463 0.3339120 0.3489208 0.3782111 0.3645630
## Cluster 3 0.6367745 0.6509929 0.6771248 0.7129418 0.6941901 0.6780213 0.6993943
## Cluster 4 0.5073466 0.4681300 0.4747329 0.5243105 0.5204765 0.5651227 0.6037401
## Cluster 5 0.4179052 0.4403147 0.5274052 0.4806940 0.4585733 0.4649310 0.4920560
                            8819
                                      8820
                                                           8822
                                                                     8823
##
                  8818
                                                8821
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## Cluster 1 0.6794390 0.8271141 1.0369204 1.3009019 1.4153130 1.3109019 1.2136286
## Cluster 2 0.3949443 0.4733842 0.6108563 0.7795425 0.8830704 1.0945308 1.1636070
## Cluster 3 0.7562057 0.9069418 1.0318184 1.1338482 1.1860468 1.1691191 1.1679404
## Cluster 4 0.5976715 0.7421155 0.7823032 1.0147653 1.0747473 0.9945848 0.8858339
## Cluster 5 0.4780517 0.5304784 0.6170259 0.8263405 0.8906983 0.8865216 0.9108750
##
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```

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## Cluster 1 1.1468077 1.122390 1.0586393 0.9973143 0.9360398 0.8562732 0.7989894
## Cluster 2 1.1702522 1.180578 1.1435279 1.1268886 1.1243519 1.0260381 0.9662258
## Cluster 3 1.1207319 1.123260 1.0300894 1.0735135 0.9921277 0.9425844 0.9063801
## Cluster 4 0.8921625 0.911083 0.8604693 0.8399747 0.8508989 0.7771805 0.6650614
## Cluster 5 0.9494655 1.004384 0.9876207 0.9810043 0.9908750 0.9290302 0.9598966
                  8832
                            8833
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                                                8835
                                                           8836
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## Cluster 1 0.6689695 0.5567626 0.4328302 0.3306313 0.2672454 0.2149867 0.1940252
## Cluster 2 0.8263314 0.7367830 0.5530059 0.3944399 0.2997009 0.2474897 0.2030176
## Cluster 3 0.8223589 0.7288085 0.6523901 0.5135333 0.4203617 0.3497887 0.2953220
## Cluster 4 0.5920000 0.5253827 0.4287726 0.3815884 0.3334440 0.3019134 0.2861588
  Cluster 5 0.9014095 0.9236509 0.9286552 0.7319181 0.5817155 0.5450216 0.4563362
                            8840
                                      8841
                  8839
                                                8842
                                                           8843
                                                                     8844
                                                                               8845
## Cluster 1 0.1851419 0.1664032 0.1640106 0.1600225 0.1604801 0.1628210 0.1742056
## Cluster 2 0.1979326 0.1820205 0.1698446 0.1714985 0.1618768 0.1614897 0.1705073
## Cluster 3 0.2587348 0.2392794 0.2299929 0.2246738 0.2241801 0.2209617 0.2279362
## Cluster 4 0.2738736 0.2841697 0.2635343 0.2625451 0.2908917 0.3256498 0.3056895
## Cluster 5 0.3669138 0.3498103 0.3113319 0.2955776 0.3016509 0.2814181 0.2606121
##
                  8846
                            8847
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                                                8849
                                                           8850
                                                                     8851
                                                                               8852
## Cluster 1 0.1795159 0.2003501 0.2525756 0.3890942 0.5850119 0.6231141 0.5628912
## Cluster 2 0.2182434 0.2386364 0.3211466 0.4870645 0.4996804 0.5859238 0.4435865
## Cluster 3 0.2276823 0.2437844 0.2972851 0.3846979 0.4848879 0.5681333 0.5668809
## Cluster 4 0.3528195 0.4264910 0.6304079 0.8359097 0.9064440 0.8603827 0.6848303
## Cluster 5 0.2928750 0.2996767 0.3211724 0.4198491 0.4484440 0.5417716 0.5279784
                  8853
                            8854
                                      8855
                                                8856
                                                           8857
                                                                     8858
## Cluster 1 0.5427109 0.5195570 0.5148515 0.5201048 0.5150955 0.5486154 0.5311817
## Cluster 2 0.3489355 0.3102287 0.2780557 0.2788182 0.2453050 0.2588387 0.2569677
## Cluster 3 0.4888723 0.4980000 0.5223135 0.5389404 0.5732837 0.5649631 0.5750355
## Cluster 4 0.5340866 0.5122455 0.4674765 0.4562671 0.4464585 0.4094765 0.4326715
## Cluster 5 0.4727026 0.4440216 0.3948405 0.3436078 0.3952457 0.4171724 0.4051983
##
                  8860
                            8861
                                      8862
                                                8863
                                                           8864
                                                                     8865
                                                                               8866
## Cluster 1 0.5792692 0.6103806 0.5650040 0.5178223 0.5549377 0.5653435 0.6280133
## Cluster 2 0.3449560 0.3509326 0.3371144 0.3515220 0.3230616 0.3085191 0.3617419
## Cluster 3 0.6120624 0.6209887 0.6129248 0.6230156 0.5794057 0.6372936 0.7260794
## Cluster 4 0.4560975 0.4629964 0.4599856 0.4858267 0.5187112 0.5153935 0.5457329
## Cluster 5 0.3886379 0.4019052 0.4075905 0.4236724 0.4308448 0.4340603 0.4357845
                            8868
                                      8869
                                                8870
                                                           8871
                                                                     8872
                  8867
## Cluster 1 0.7501724 0.9313621 1.2114496 1.3668422 1.2982626 1.2005663 1.0851180
## Cluster 2 0.3864663 0.5059150 0.7253460 0.9132610 1.0543138 1.1053724 1.1588475
## Cluster 3 0.8276851 1.0426284 1.1277957 1.1709674 1.1907631 1.1501801 1.1044865
## Cluster 4 0.6601300 0.8048448 1.0027112 0.9530181 0.9571733 0.8787256 0.8495018
## Cluster 5 0.4851250 0.5795991 0.7501983 0.8485216 0.8452759 0.9100431 1.0001422
                  8874
                            8875
                                      8876
                                                8877
                                                           8878
                                                                     8879
                                                                               8880
## Cluster 1 1.0962162 1.0359867 0.9950491 0.9593674 0.8612639 0.7587374 0.6655292
## Cluster 2 1.0923988 1.0366452 1.0713519 1.0986628 1.0421202 0.9630352 0.8290381
## Cluster 3 1.0997149 1.0259830 1.0053716 1.0043674 0.9428284 0.9214043 0.8670355
## Cluster 4 0.7408556 0.7327978 0.7137942 0.7532924 0.7379025 0.6948303 0.5978736
## Cluster 5 0.9647241 0.9206250 0.9111164 0.9114871 0.9287284 0.9537974 0.8984526
                            8882
                                      8883
                                                8884
                                                           8885
                                                                     8886
##
                  8881
                                                                               8887
## Cluster 1 0.5613448 0.4248395 0.3255875 0.2531698 0.2173912 0.2102109 0.1911525
## Cluster 2 0.6485806 0.4856246 0.3811642 0.2796979 0.2266774 0.1807038 0.1789707
## Cluster 3 0.7688284 0.6627730 0.5606511 0.4307631 0.3479177 0.2946482 0.2629631
## Cluster 4 0.5154585 0.4373718 0.3943105 0.3036354 0.2780253 0.2676137 0.2675848
## Cluster 5 0.9396638 0.8841336 0.7365345 0.6365302 0.5754310 0.4473922 0.3848147
##
                  8888
                            8889
                                      8890
                                                8891
                                                           8892
                                                                     8893
                                                                               8894
```

```
## Cluster 1 0.1806684 0.1701578 0.1662905 0.1662679 0.1796220 0.1764761 0.1796711
## Cluster 2 0.1657331 0.1636891 0.1656921 0.1581496 0.1593988 0.1717449 0.2162405
## Cluster 3 0.2421277 0.2373560 0.2272695 0.2192397 0.2224270 0.2233177 0.2372894
## Cluster 4 0.2406065 0.2400072 0.2588700 0.2833105 0.2934477 0.2795560 0.3099783
## Cluster 5 0.3687371 0.3112629 0.2937500 0.3149224 0.2864612 0.2601940 0.2768922
                  8895
                            8896
                                      8897
                                                8898
                                                          8899
                                                                     8900
## Cluster 1 0.2035875 0.2442732 0.3985199 0.5412918 0.6496817 0.6374814 0.5677997
## Cluster 2 0.2372258 0.3227859 0.4069971 0.5333519 0.5962903 0.4713578 0.3787243
## Cluster 3 0.2586553 0.3010738 0.3732369 0.4525064 0.5087333 0.5275688 0.4780681
## Cluster 4 0.3857978 0.5799747 0.7716679 0.8660975 0.8156715 0.6510253 0.5553466
  Cluster 5 0.3116336 0.2960733 0.4028362 0.4747845 0.6224138 0.5007155 0.3991078
                  8902
                            8903
                                      8904
                                                8905
                                                           8906
                                                                     8907
## Cluster 1 0.5868475 0.5549881 0.5492546 0.5203554 0.4812639 0.5183873 0.5363342
## Cluster 2 0.3579472 0.3365689 0.3260880 0.3096158 0.3197566 0.3097713 0.3719326
## Cluster 3 0.4623035 0.4809064 0.4959433 0.5116738 0.5483844 0.5753362 0.5998355
## Cluster 4 0.5106173 0.4656282 0.4513935 0.4564477 0.4123935 0.4587942 0.4357040
## Cluster 5 0.4295776 0.4074526 0.3559181 0.3878448 0.3642112 0.4275733 0.4002155
##
                  8909
                            8910
                                      8911
                                                8912
                                                           8913
                                                                     8914
                                                                               8915
## Cluster 1 0.5376048 0.5394695 0.5336286 0.5344536 0.6253541 0.7306698 0.8324085
## Cluster 2 0.3651525 0.3632874 0.3205367 0.3036158 0.3593284 0.4410029 0.5110323
## Cluster 3 0.6187149 0.5762879 0.6271830 0.6489546 0.7502539 0.8138156 0.9051035
## Cluster 4 0.4431011 0.4294043 0.4564910 0.4402419 0.4903791 0.5823863 0.6647040
## Cluster 5 0.4069052 0.4108491 0.3963922 0.3999612 0.4262716 0.4802802 0.5561724
                  8916
                            8917
                                      8918
                                                8919
                                                           8920
                                                                     8921
## Cluster 1 0.9753037 1.1487798 1.2668143 1.2327334 1.1252759 1.0561459 1.0475345
## Cluster 2 0.5974282 0.7884956 0.9669883 1.1275161 1.0682991 1.1393314 1.1444751
## Cluster 3 1.0134894 1.0452397 1.0595078 1.1028610 1.0592369 1.0221262 1.0032270
## Cluster 4 0.8070000 0.8599928 0.9262635 0.9126462 0.8591372 0.8439350 0.7910253
## Cluster 5 0.6564698 0.7391595 0.7783578 0.8323319 0.8815086 0.9003621 0.8701207
                  8923
                            8924
                                      8925
                                                8926
                                                           8927
                                                                     8928
                                                                               8929
## Cluster 1 1.0391273 0.9517082 0.8973369 0.8413316 0.7406366 0.6821313 0.6221419
## Cluster 2 1.0654282 1.0530117 1.0353959 0.9323636 0.8668387 0.7864868 0.7175073
## Cluster 3 0.9771986 0.9873121 0.9580241 0.8948355 0.8805560 0.8243560 0.7909645
## Cluster 4 0.7548087 0.7629097 0.7526823 0.7454910 0.6429495 0.5894188 0.5601336
## Cluster 5 0.9169095 0.8976466 0.8745517 0.8636034 0.8858534 0.8455905 0.8407500
                  8930
                            8931
                                                8933
                                                          8934
                                      8932
                                                                     8935
## Cluster 1 0.5508554 0.4448979 0.3407493 0.2839244 0.2348037 0.1975995 0.1874748
## Cluster 2 0.6389443 0.5003871 0.3972170 0.3405982 0.2565455 0.2281965 0.2090909
## Cluster 3 0.7092255 0.6532454 0.5364894 0.4394567 0.3719957 0.3172738 0.2738284
## Cluster 4 0.4903466 0.4169639 0.3596209 0.3197473 0.2788700 0.2571661 0.2535307
## Cluster 5 0.8178534 0.7324310 0.5976509 0.5733405 0.4914181 0.4217457 0.4053966
                  8937
                            8938
                                      8939
                                                8940
                                                                     8942
                                                           8941
                                                                               8943
## Cluster 1 0.1818554 0.1807069 0.1832997 0.1791923 0.1767294 0.1803912 0.1912374
## Cluster 2 0.1833021 0.1838651 0.1751261 0.1713402 0.1856041 0.1927566 0.2048240
## Cluster 3 0.2530638 0.2444823 0.2190922 0.2186000 0.2244298 0.2290865 0.2411035
## Cluster 4 0.2412094 0.2811119 0.2693177 0.2654404 0.2747184 0.2922202 0.3334693
## Cluster 5 0.3582672 0.3077371 0.3173448 0.3111422 0.2889914 0.2757155 0.2952586
                            8945
                                                           8948
##
                  8944
                                      8946
                                                8947
                                                                     8949
                                                                               8950
## Cluster 1 0.2092785 0.2527374 0.2932347 0.3731286 0.4446101 0.5037188 0.6397838
## Cluster 2 0.2159032 0.2487419 0.2916774 0.3555748 0.4426481 0.4961173 0.5011935
## Cluster 3 0.2447787 0.2736099 0.2992284 0.3343262 0.3753319 0.4407957 0.4972496
## Cluster 4 0.3765379 0.4416462 0.5223141 0.6119278 0.6210469 0.5806426 0.5946065
## Cluster 5 0.2884397 0.3138448 0.3279483 0.3540474 0.4529655 0.4340431 0.5071466
##
                  8951
                            8952
                                      8953
                                                8954
                                                           8955
                                                                     8956
                                                                               8957
```

```
## Cluster 1 0.7067493 0.7255318 0.7412865 0.7653859 0.7546260 0.7670889 0.7953674
## Cluster 2 0.5122639 0.4769062 0.4851202 0.4548446 0.5148886 0.5147390 0.4984106
## Cluster 3 0.5356043 0.6395674 0.6776894 0.7472199 0.7905589 0.7761631 0.7270170
## Cluster 4 0.5782419 0.6084693 0.5894007 0.6308484 0.6479025 0.6252347 0.6072022
## Cluster 5 0.4713966 0.4886336 0.5016681 0.5237931 0.5309397 0.5251164 0.5523233
                  8958
                            8959
                                      8960
                                                8961
                                                           8962
                                                                     8963
## Cluster 1 0.7595345 0.7327666 0.6701088 0.6889761 0.7186074 0.8177003 0.8911366
## Cluster 2 0.5071026 0.4973226 0.4817097 0.4708006 0.4984106 0.5156745 0.6205894
## Cluster 3 0.7398837 0.7763915 0.7716142 0.8048227 0.8034709 0.8004482 0.9445234
## Cluster 4 0.6003394 0.5683141 0.6100830 0.5740036 0.5788953 0.6691011 0.7395596
  Cluster 5 0.5839871 0.4974698 0.4724138 0.4823190 0.5442198 0.5999052 0.6725216
                            8966
                  8965
                                      8967
                                                8968
                                                           8969
                                                                     8970
                                                                               8971
## Cluster 1 1.1059443 1.2677666 1.2445676 1.2068369 1.1218395 1.0477586 0.9905438
## Cluster 2 0.7527947 0.9533490 0.9587625 1.0219707 1.0663900 1.0149707 0.9779238
## Cluster 3 1.0573177 1.1092709 1.1426241 1.1076908 1.0715021 1.0446028 1.0054879
## Cluster 4 0.9873430 1.0650794 0.9799892 0.9285379 0.8729242 0.7947473 0.7799711
## Cluster 5 0.7809483 0.9018578 0.9524052 0.9557198 0.9652069 0.9653017 0.9403836
##
                  8972
                            8973
                                      8974
                                                8975
                                                           8976
                                                                     8977
                                                                               8978
## Cluster 1 0.9405942 0.8848700 0.8426247 0.7604125 0.6568952 0.5934881 0.5153077
## Cluster 2 0.9666804 0.9800704 0.9023519 0.8099296 0.7869296 0.6615279 0.5518856
## Cluster 3 0.9718014 0.8917645 0.8892979 0.8051972 0.7678993 0.7316837 0.6779362
## Cluster 4 0.7535090 0.7370217 0.7170289 0.5838231 0.5052960 0.4606859 0.4280650
## Cluster 5 0.8699741 0.8414655 0.8402543 0.8602586 0.8032069 0.7927069 0.7880991
                  8979
                            8980
                                      8981
                                                8982
                                                           8983
                                                                     8984
## Cluster 1 0.4280491 0.3392162 0.2795477 0.2408899 0.2210782 0.2058992 0.1870623
## Cluster 2 0.4642786 0.3915455 0.3272815 0.2695249 0.2452845 0.2020674 0.1954809
## Cluster 3 0.6044511 0.4949064 0.4394539 0.3887305 0.3372071 0.3051759 0.2707801
## Cluster 4 0.3796715 0.3277437 0.3093249 0.2869170 0.2849639 0.2964729 0.2930542
## Cluster 5 0.6928060 0.6623879 0.6314440 0.5186034 0.4303147 0.4229397 0.3495690
                  8986
                            8987
                                      8988
                                                8989
                                                           8990
                                                                     8991
                                                                               8992
## Cluster 1 0.1806830 0.1773568 0.1734337 0.1734867 0.1730239 0.1829695 0.1907109
## Cluster 2 0.1817214 0.1769736 0.1669736 0.1766305 0.1817126 0.1764927 0.2003255
## Cluster 3 0.2573220 0.2365234 0.2348525 0.2203291 0.2259035 0.2361489 0.2416298
## Cluster 4 0.2768881 0.2696065 0.2873971 0.3062166 0.2869892 0.3395704 0.3968881
## Cluster 5 0.3102069 0.3249310 0.2826422 0.2691595 0.2545690 0.2680819 0.2823578
                  8993
                            8994
                                      8995
                                                8996
                                                          8997
                                                                     8998
## Cluster 1 0.2253435 0.2403833 0.3024642 0.3945225 0.5414960 0.5929151 0.6847891
## Cluster 2 0.2145924 0.2514545 0.3003695 0.3502845 0.4209150 0.3948768 0.4747155
## Cluster 3 0.2409518 0.2595390 0.2895121 0.3248979 0.3789858 0.4736440 0.5670922
## Cluster 4 0.4358375 0.4463357 0.5052094 0.5781119 0.6066679 0.6488123 0.6268159
## Cluster 5 0.3062328 0.3341121 0.3408362 0.3243190 0.3869181 0.4219052 0.5225776
                  9000
                            9001
                                      9002
                                                9003
                                                           9004
                                                                     9005
                                                                               9006
## Cluster 1 0.7561684 0.8693183 0.8916631 0.9222294 0.9407891 0.9985345 0.9416512
## Cluster 2 0.5197595 0.5189501 0.5777742 0.6092581 0.5959413 0.5901056 0.5861730
## Cluster 3 0.6881745 0.7428511 0.7464652 0.8347645 0.9323220 0.9504213 0.9422142
## Cluster 4 0.6409783 0.6211986 0.7073538 0.7372708 0.7089458 0.6843791 0.6732058
## Cluster 5 0.4959138 0.5528060 0.5387112 0.5741767 0.5434353 0.6178491 0.5796552
                  9007
                            9008
                                      9009
                                                                     9012
##
                                                9010
                                                           9011
                                                                               9013
## Cluster 1 0.8324244 0.7646844 0.8002361 0.7928607 0.8372308 0.9364801 1.0628992
## Cluster 2 0.5966158 0.5903695 0.5249208 0.5229091 0.5872522 0.6893167 0.8604897
## Cluster 3 0.8741092 0.8323986 0.7693532 0.7957050 0.8561645 0.9631092 1.0270014
## Cluster 4 0.6242960 0.6782166 0.6580469 0.6351661 0.7722058 0.8564910 0.9138484
## Cluster 5 0.6709440 0.6555905 0.5567629 0.5174267 0.5630647 0.6832198 0.7946767
##
                  9014
                            9015
                                      9016
                                                9017
                                                           9018
                                                                     9019
                                                                               9020
```

```
## Cluster 1 1.1700279 1.2191870 1.1469695 1.0374138 1.0128740 0.9365623 0.9202321
## Cluster 2 0.9974809 1.0718915 1.1315103 1.1125777 1.0622845 1.0672170 1.0605543
## Cluster 3 1.0862752 1.1172922 1.0818440 1.0319135 0.9914014 0.9435844 0.9590369
## Cluster 4 0.8756282 0.9141191 0.8254224 0.8291264 0.7746173 0.7523538 0.7044982
## Cluster 5 0.8884612 0.8266422 0.8368147 0.8457802 0.8771336 0.8545560 0.8836034
                  9021
                            9022
                                      9023
                                                9024
                                                          9025
                                                                     9026
## Cluster 1 0.9082188 0.8112414 0.7043873 0.6051167 0.4941194 0.4172507 0.3351804
## Cluster 2 0.9955718 0.9776716 0.8471290 0.8111173 0.6549355 0.5082581 0.3946774
## Cluster 3 0.9189305 0.8973234 0.8350468 0.7828979 0.7089248 0.6211972 0.5140738
## Cluster 4 0.7091227 0.6934513 0.5677329 0.5178845 0.4717978 0.4050830 0.3416318
  Cluster 5 0.9538922 0.9109224 0.8345388 0.8158362 0.8362414 0.7694612 0.6489914
                  9028
                            9029
                                      9030
                                                9031
                                                           9032
                                                                     9033
                                                                               9034
## Cluster 1 0.2662560 0.2261552 0.1955822 0.1753607 0.1730743 0.1633939 0.1579483
## Cluster 2 0.2993021 0.2141232 0.1883167 0.1721026 0.1690938 0.1666422 0.1727507
## Cluster 3 0.4439546 0.3601589 0.3088610 0.2655645 0.2436397 0.2312582 0.2202695
## Cluster 4 0.3090072 0.2967365 0.2633357 0.2343357 0.2259170 0.2329206 0.2447040
## Cluster 5 0.5999483 0.5257845 0.4309655 0.3579526 0.3369526 0.3001638 0.2624052
##
                  9035
                            9036
                                      9037
                                                9038
                                                           9039
                                                                     9040
                                                                               9041
## Cluster 1 0.1599536 0.1635027 0.1646578 0.1756525 0.2064920 0.2520491 0.3860212
## Cluster 2 0.1602669 0.1640381 0.1703578 0.2116481 0.2367243 0.3475894 0.4749677
## Cluster 3 0.2138142 0.2115915 0.2144780 0.2280411 0.2530170 0.3156043 0.3847532
## Cluster 4 0.2471408 0.2546859 0.2720866 0.3096787 0.4205199 0.6390903 0.7964332
## Cluster 5 0.2812802 0.2603190 0.2461121 0.2686638 0.2733190 0.2835776 0.3790216
                  9042
                            9043
                                      9044
                                                9045
                                                           9046
                                                                     9047
## Cluster 1 0.5618302 0.6452149 0.5646207 0.5228740 0.5371180 0.5523422 0.5588873
## Cluster 2 0.5645630 0.5407273 0.4323314 0.3324897 0.3038006 0.2772229 0.2680762
## Cluster 3 0.4812128 0.5380879 0.5008950 0.4561603 0.4648879 0.4976823 0.5218837
## Cluster 4 0.8563032 0.7797726 0.5738303 0.4867906 0.5081625 0.5008375 0.4524513
## Cluster 5 0.4643534 0.5251078 0.4617069 0.4191810 0.4464267 0.3668405 0.3756897
                  9049
                            9050
                                      9051
                                                9052
                                                           9053
                                                                     9054
                                                                               9055
## Cluster 1 0.5059403 0.4789695 0.4868276 0.5204841 0.5052613 0.5146552 0.4872573
## Cluster 2 0.2872111 0.2699296 0.2823607 0.2871144 0.3105191 0.2806276 0.2840176
## Cluster 3 0.5116199 0.5812752 0.5605305 0.5934085 0.6200426 0.6106468 0.6172582
## Cluster 4 0.4139892 0.4378159 0.4472130 0.4507473 0.4488303 0.4641119 0.4393610
## Cluster 5 0.4289741 0.4190216 0.4530086 0.4600345 0.4592328 0.3768103 0.3827672
                  9056
                            9057
                                      9058
                                                9059
                                                          9060
                                                                     9061
## Cluster 1 0.5175531 0.5663302 0.5845305 0.6989218 0.9101088 1.2229748 1.3556406
## Cluster 2 0.2953783 0.3162493 0.3786833 0.4111144 0.5322581 0.6572229 0.8559501
## Cluster 3 0.6178496 0.6240270 0.6953730 0.7995560 0.9949050 1.0675248 1.0848723
## Cluster 4 0.4673357 0.5563899 0.5993682 0.6818628 0.7902708 0.9668159 1.0366823
## Cluster 5 0.3774741 0.3905603 0.4216422 0.4718534 0.5086810 0.6398922 0.7400991
                  9063
                            9064
                                      9065
                                                9066
                                                           9067
                                                                     9068
                                                                               9069
## Cluster 1 1.3281207 1.2028700 1.1993050 1.0844642 1.0110358 0.9553647 0.9256260
## Cluster 2 1.0634839 1.1142962 1.1242082 1.1393314 1.1379150 1.0488065 1.0824076
## Cluster 3 1.0912567 1.0503972 1.0080057 1.0246979 0.9741688 0.9686142 0.9380298
## Cluster 4 0.8922058 0.9210144 0.8589856 0.8325343 0.7468231 0.7317220 0.7562347
## Cluster 5 0.8604526 0.9098017 0.8725216 0.8111595 0.8473879 0.8703966 0.8779569
                  9070
                            9071
                                                9073
                                                           9074
                                                                     9075
##
                                      9072
                                                                               9076
## Cluster 1 0.8035995 0.7317520 0.6317825 0.5184655 0.4115928 0.3133395 0.2531857
## Cluster 2 1.0068299 0.9298651 0.7823519 0.6608006 0.4611056 0.3494457 0.2546657
## Cluster 3 0.8870142 0.8250468 0.7800113 0.7137816 0.5968908 0.4900383 0.4104383
## Cluster 4 0.7174513 0.6645596 0.5697220 0.5163682 0.4072924 0.3348917 0.2837978
## Cluster 5 0.8749526 0.9083664 0.8291724 0.8246336 0.7795000 0.6875647 0.6151207
##
                  9077
                            9078
                                      9079
                                                9080
                                                           9081
                                                                     9082
```

```
## Cluster 1 0.2043408 0.1795239 0.1743170 0.1638700 0.1639576 0.1520584 0.1542520
## Cluster 2 0.2046305 0.1775425 0.1633490 0.1555924 0.1479267 0.1464164 0.1492111
## Cluster 3 0.3429901 0.2743475 0.2394936 0.2281191 0.2188908 0.2092496 0.2038652
## Cluster 4 0.2633682 0.2575740 0.2426498 0.2226968 0.2301805 0.2453502 0.2424477
## Cluster 5 0.5288836 0.4607888 0.4122759 0.3639957 0.3010690 0.2951724 0.2790991
                  9084
                            9085
                                      9086
                                                9087
                                                           9088
                                                                     9089
##
## Cluster 1 0.1556114 0.1616711 0.1728210 0.1923236 0.2646910 0.3910119 0.5585756
## Cluster 2 0.1543226 0.1602933 0.1971701 0.2500147 0.3513372 0.5030850 0.5921114
## Cluster 3 0.2060610 0.2152340 0.2274355 0.2494780 0.2925631 0.3722922 0.4661404
## Cluster 4 0.2510903 0.2805090 0.3000181 0.3822166 0.5932094 0.8731625 1.0191191
  Cluster 5 0.2759526 0.2852328 0.3131853 0.3044828 0.3134353 0.4255086 0.4863017
                            9092
                                                                     9096
                  9091
                                      9093
                                                9094
                                                           9095
                                                                               9097
## Cluster 1 0.6153806 0.5662613 0.5641737 0.5778939 0.5739390 0.5276088 0.5081923
## Cluster 2 0.5201642 0.4274897 0.3326364 0.2691085 0.2608592 0.2407801 0.2497185
## Cluster 3 0.5185163 0.5091277 0.4801929 0.4751234 0.4920128 0.5055433 0.5123830
## Cluster 4 0.8834477 0.7258520 0.5782022 0.5129061 0.5350469 0.4692888 0.4218520
## Cluster 5 0.5570647 0.4680345 0.4325216 0.4228922 0.3779784 0.3997672 0.3583233
##
                  9098
                            9099
                                      9100
                                                9101
                                                           9102
                                                                     9103
                                                                               9104
## Cluster 1 0.5239602 0.5225690 0.5362560 0.5905146 0.5437732 0.5312228 0.5489297
## Cluster 2 0.2628446 0.2860557 0.3217742 0.2869648 0.2854457 0.2864839 0.2999120
## Cluster 3 0.5339716 0.5692014 0.5990482 0.6232766 0.5978312 0.5964865 0.6642809
## Cluster 4 0.4927112 0.4803718 0.4540108 0.4327401 0.4352130 0.4511083 0.4919928
## Cluster 5 0.3745517 0.4011293 0.3897198 0.4490172 0.3809655 0.3992414 0.4236897
                  9105
                            9106
                                      9107
                                                9108
                                                           9109
                                                                     9110
## Cluster 1 0.6073647 0.6747003 0.7585637 1.0095279 1.2752971 1.3513647 1.2939231
## Cluster 2 0.3605249 0.3701994 0.4066745 0.5242405 0.7205279 0.9132610 1.0773431
## Cluster 3 0.7006383 0.7249674 0.8478667 1.0267901 1.0652936 1.1375447 1.1112284
## Cluster 4 0.5303466 0.5818051 0.7304874 0.9056462 0.9918375 1.0183502 0.9132310
## Cluster 5 0.4296164 0.4886810 0.5185474 0.5743750 0.6651983 0.7922716 0.8757414
##
                  9112
                            9113
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                                                           9116
                                                                     9117
                                                                               9118
## Cluster 1 1.2394257 1.1717016 1.0732891 1.0668873 0.9996658 0.9619748 0.8511724
## Cluster 2 1.0701290 1.1656686 1.1846422 1.1628065 1.0901290 1.0648035 1.0433226
## Cluster 3 1.0698113 1.0348567 1.0102624 1.0325376 1.0171206 0.9546284 0.9263518
## Cluster 4 0.8537762 0.8614765 0.7812238 0.7994007 0.7744332 0.7563430 0.7054693
## Cluster 5 0.9225647 0.8994095 0.9203578 0.8974224 0.8827069 0.9382845 0.9310948
                            9120
                                                9122
                                                          9123
                                                                     9124
                  9119
                                      9121
                                                                               9125
## Cluster 1 0.7470438 0.6311167 0.5170676 0.4156923 0.3071207 0.2480809 0.1982785
## Cluster 2 0.9390938 0.8344311 0.6718065 0.4674927 0.3328123 0.2670264 0.2072463
## Cluster 3 0.8645759 0.8153177 0.7233163 0.6114369 0.5233248 0.4027929 0.3572213
## Cluster 4 0.6477184 0.5458412 0.5057040 0.4610722 0.3693357 0.3113863 0.2750108
## Cluster 5 0.8427629 0.7880948 0.8113103 0.8635302 0.7538190 0.5810259 0.4535388
                  9126
                            9127
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                                                           9130
                                                                     9131
                                                                               9132
## Cluster 1 0.1870544 0.1705080 0.1565716 0.1537162 0.1548634 0.1534297 0.1572573
## Cluster 2 0.1895953 0.1682229 0.1655279 0.1609941 0.1561349 0.1597067 0.1568065
## Cluster 3 0.2908156 0.2600128 0.2363546 0.2245206 0.2115376 0.2087943 0.2004865
## Cluster 4 0.2644946 0.2507798 0.2637437 0.2573069 0.2616065 0.2449097 0.2608339
## Cluster 5 0.3617845 0.3345647 0.2860172 0.3140000 0.2878922 0.2582328 0.2563664
                                      9135
##
                  9133
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                                                           9137
                                                                     9138
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## Cluster 1 0.1611751 0.1797056 0.1991923 0.2505252 0.3887003 0.5990769 0.6559934
## Cluster 2 0.1684194 0.2213636 0.2402023 0.3544311 0.4765279 0.5755836 0.5683314
## Cluster 3 0.2108255 0.2136894 0.2403759 0.3048851 0.3875986 0.4744738 0.5321887
## Cluster 4 0.2860469 0.3167112 0.4248303 0.5541588 0.8140253 0.8965523 0.8125343
## Cluster 5 0.2625388 0.2633879 0.2729655 0.3240431 0.3966595 0.4786681 0.5468664
##
                  9140
                            9141
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                                                           9144
                                                                     9145
```

```
## Cluster 1 0.5963581 0.5429589 0.5396592 0.5653528 0.5243395 0.5341976 0.4927387
## Cluster 2 0.4094135 0.3316657 0.2998768 0.2697038 0.2663695 0.2550762 0.2525396
## Cluster 3 0.5132865 0.4637106 0.4644227 0.4727518 0.4747319 0.4502312 0.4829319
## Cluster 4 0.6746715 0.5473430 0.5200903 0.4567365 0.3983574 0.3977509 0.3891552
## Cluster 5 0.4710733 0.3847629 0.3551250 0.3024310 0.2871379 0.3577371 0.3654224
                                                           9151
                                                                     9152
                  9147
                            9148
                                      9149
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                                                                               9153
## Cluster 1 0.4644019 0.5399430 0.5482082 0.5144748 0.5253700 0.5273050 0.5546260
## Cluster 2 0.2422845 0.2697185 0.3024633 0.3421642 0.3650938 0.3110704 0.3245660
## Cluster 3 0.5126411 0.5183957 0.5662979 0.5659560 0.5583560 0.5647489 0.5993149
## Cluster 4 0.4396715 0.4340433 0.4179495 0.4268628 0.4557690 0.4526715 0.4676606
  Cluster 5 0.3794698 0.4019095 0.3974440 0.3700603 0.3313276 0.3605690 0.3691164
                                      9156
                  9154
                            9155
                                                 9157
                                                           9158
                                                                     9159
## Cluster 1 0.6125080 0.6529682 0.9239973 1.1831910 1.3157772 1.2865796 1.1706419
## Cluster 2 0.3295279 0.3759296 0.4233578 0.6518387 0.8874633 1.1251144 1.1186686
## Cluster 3 0.7012525 0.7649674 0.9008170 0.9872213 1.0794511 1.1022525 1.0824057
## Cluster 4 0.5211661 0.6873827 0.8128303 0.8618339 0.9494874 0.9287798 0.8904982
## Cluster 5 0.3838534 0.4581164 0.5334397 0.6564181 0.7111983 0.7478017 0.7754871
##
                  9161
                            9162
                                      9163
                                                 9164
                                                           9165
                                                                     9166
                                                                               9167
## Cluster 1 1.0817679 1.0532825 1.0063554 0.9768064 0.9580889 0.8549469 0.7557785
## Cluster 2 1.1915044 1.1599765 1.1817302 1.1342082 1.1111848 1.0065161 0.9536804
## Cluster 3 1.0806227 1.0556468 1.0375674 0.9604213 0.9395078 0.8900312 0.8510553
## Cluster 4 0.8252022 0.8540650 0.8305199 0.7742852 0.7113827 0.6971841 0.6271155
## Cluster 5 0.8158233 0.8384828 0.8330819 0.8796853 0.9280862 0.8830431 0.8769957
                  9168
                            9169
                                      9170
                                                 9171
                                                           9172
                                                                     9173
## Cluster 1 0.6288647 0.5341194 0.4374788 0.3167374 0.2445398 0.2071777 0.1893528
## Cluster 2 0.8369501 0.7354897 0.5172815 0.3630440 0.2706921 0.2181613 0.1874516
## Cluster 3 0.7936426 0.7186652 0.6324142 0.4926780 0.3950014 0.3160851 0.2776922
## Cluster 4 0.5775271 0.5338881 0.4330289 0.3654621 0.2970975 0.2802455 0.2547184
## Cluster 5 0.8127586 0.8863621 0.8342026 0.7036810 0.5575345 0.4495690 0.4050991
##
                  9175
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                                                           9179
                                                                     9180
                                                                               9181
## Cluster 1 0.1777122 0.1644867 0.1624032 0.1564058 0.1589509 0.1630172 0.1666989
## Cluster 2 0.1806070 0.1644194 0.1577947 0.1609150 0.1596921 0.1529150 0.1635073
## Cluster 3 0.2338411 0.2191560 0.2054255 0.2056823 0.2003844 0.1992255 0.2023532
## Cluster 4 0.2575560 0.2320469 0.2445343 0.2367978 0.2301661 0.2470614 0.2998014
## Cluster 5 0.3717888 0.3180259 0.3140862 0.2899871 0.2597931 0.2838707 0.2643922
                  9182
                            9183
                                                9185
                                                          9186
                                      9184
                                                                     9187
## Cluster 1 0.1799682 0.1923568 0.2588355 0.4009841 0.5943647 0.6269231 0.5478263
## Cluster 2 0.2020821 0.2619208 0.3799150 0.4962317 0.6225132 0.5508534 0.4207273
## Cluster 3 0.2076255 0.2420752 0.2970681 0.3478426 0.4733433 0.5548312 0.5183574
## Cluster 4 0.3238195 0.4114007 0.5907509 0.8125560 0.9459422 0.8300614 0.6334007
## Cluster 5 0.2546164 0.2825172 0.3091681 0.4028060 0.4850948 0.5265000 0.4821724
                  9189
                            9190
                                      9191
                                                 9192
                                                           9193
                                                                     9194
                                                                               9195
## Cluster 1 0.5437639 0.5477798 0.5244602 0.5553077 0.5167971 0.5057706 0.5377865
## Cluster 2 0.3619296 0.3278182 0.3028768 0.3397625 0.3072111 0.2850147 0.2852493
## Cluster 3 0.4905816 0.4846284 0.4972170 0.4933830 0.4854894 0.5266723 0.5680610
## Cluster 4 0.5468809 0.5412022 0.4702671 0.4295632 0.5204946 0.4525848 0.4696606
## Cluster 5 0.4099698 0.3661250 0.3762629 0.3855000 0.3443621 0.3719871 0.4119655
                                      9198
                                                           9200
                                                                     9201
##
                  9196
                            9197
                                                 9199
                                                                               9202
## Cluster 1 0.5923660 0.5915477 0.5499523 0.5646830 0.5892294 0.6291936 0.7016897
## Cluster 2 0.3285630 0.3485572 0.3206217 0.3341554 0.3280088 0.3362023 0.3686012
## Cluster 3 0.6347234 0.6742922 0.6608099 0.6446454 0.6575106 0.6912695 0.7428426
## Cluster 4 0.5240000 0.4838448 0.4891011 0.4932708 0.4731300 0.4868736 0.5312816
## Cluster 5 0.4071595 0.4110603 0.3907802 0.4731681 0.4331121 0.4136336 0.4705431
##
                  9203
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                                                 9206
                                                           9207
                                                                     9208
                                                                               9209
```

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## Cluster 1 0.7781671 0.9147984 1.1363806 1.2906127 1.2658196 1.1271751 1.0793780
## Cluster 2 0.4509677 0.5450235 0.6588152 0.8045103 1.0274457 1.1148974 1.1356950
## Cluster 3 0.8723603 1.0246894 1.0346000 1.0764014 1.0770000 1.0234837 1.0257433
## Cluster 4 0.7023863 0.8209711 0.9182744 0.9039422 0.8731697 0.8017726 0.8247401
## Cluster 5 0.5344612 0.5673922 0.6537069 0.7461983 0.7900172 0.8696509 0.8440819
                  9210
                            9211
                                                9213
                                                           9214
                                                                     9215
                                      9212
## Cluster 1 1.0905252 0.9969019 0.9608873 0.9460676 0.8643515 0.7804377 0.6439828
## Cluster 2 1.0678094 1.0782786 1.0980850 1.0204692 0.9587361 0.9025396 0.7929003
## Cluster 3 0.9804482 0.9585830 0.9622780 0.9616085 0.8945135 0.8519050 0.8059418
## Cluster 4 0.8203285 0.7515343 0.6992527 0.6979747 0.6667870 0.5953718 0.5179314
## Cluster 5 0.7734095 0.7957716 0.8418578 0.8659440 0.8572672 0.8157543 0.7926250
                            9218
                                      9219
                                                                     9222
                  9217
                                                 9220
                                                           9221
## Cluster 1 0.5354708 0.4281525 0.3299960 0.2535584 0.2214151 0.1844337 0.1692719
## Cluster 2 0.6634370 0.4895777 0.3590997 0.2792023 0.2131789 0.1867801 0.1783842
## Cluster 3 0.7348199 0.6483035 0.5384184 0.4287957 0.3330709 0.2681475 0.2408780
## Cluster 4 0.4504224 0.3834440 0.3405451 0.2864296 0.2631408 0.2361949 0.2456679
## Cluster 5 0.8562284 0.7720043 0.6920000 0.5652802 0.5084310 0.4420948 0.3749871
##
                  9224
                            9225
                                      9226
                                                 9227
                                                           9228
                                                                     9229
                                                                               9230
## Cluster 1 0.1658064 0.1634456 0.1501645 0.1530875 0.1644045 0.1744973 0.1816565
## Cluster 2 0.1658270 0.1584516 0.1601085 0.1626598 0.1606716 0.1698944 0.2075982
## Cluster 3 0.2166482 0.2104511 0.2043262 0.1941518 0.1981149 0.2057206 0.2201887
## Cluster 4 0.2303321 0.2320469 0.2283321 0.2350722 0.2580397 0.2968845 0.3307653
## Cluster 5 0.3201681 0.3073966 0.2721638 0.2659914 0.2594698 0.2627414 0.2578060
                  9231
                            9232
                                      9233
                                                 9234
                                                           9235
## Cluster 1 0.1992878 0.2573408 0.3796233 0.5599549 0.6302122 0.5935172 0.5479151
## Cluster 2 0.2283490 0.3637449 0.4745220 0.5258680 0.5528299 0.4294106 0.3661760
## Cluster 3 0.2403163 0.2888156 0.3685234 0.4551050 0.5255518 0.5093915 0.4553801
## Cluster 4 0.3761552 0.5548484 0.8002599 0.8891264 0.7920686 0.6509603 0.5026101
## Cluster 5 0.2829267 0.2973448 0.3793621 0.4568491 0.5085905 0.4251293 0.3782500
                  9238
                            9239
                                      9240
                                                 9241
                                                           9242
                                                                     9243
                                                                               9244
## Cluster 1 0.5218568 0.5186101 0.5155716 0.5123753 0.4705477 0.4844244 0.5096737
## Cluster 2 0.3130792 0.2724428 0.2816364 0.2570381 0.2545748 0.2706100 0.3002551
## Cluster 3 0.4564312 0.5058426 0.4852879 0.5423348 0.5151050 0.5177333 0.5328652
## Cluster 4 0.4384838 0.4424838 0.4259206 0.3828664 0.4562383 0.4864368 0.4572022
## Cluster 5 0.4161983 0.4111293 0.3800991 0.3429741 0.3415991 0.3507112 0.3924267
                                                           9249
                                                                     9250
                  9245
                            9246
                                      9247
                                                9248
## Cluster 1 0.5294735 0.4702109 0.4714284 0.5162056 0.5364483 0.6035822 0.6543408
## Cluster 2 0.3085132 0.2856510 0.2807038 0.2858152 0.2964135 0.3352346 0.3560381
## Cluster 3 0.5792057 0.5897262 0.5739716 0.6233660 0.6533121 0.6897035 0.7176170
## Cluster 4 0.4618014 0.4483069 0.4523646 0.4432780 0.4795199 0.5752058 0.6388195
## Cluster 5 0.3754267 0.3412845 0.3600474 0.3630172 0.3791466 0.3846379 0.3934440
                  9252
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                                                9255
                                                           9256
                                                                     9257
                                                                               9258
## Cluster 1 0.7817241 1.0716459 1.2987374 1.2751618 1.1538846 1.0916366 1.0225915
## Cluster 2 0.4460205 0.6334076 0.7973783 1.0223402 1.0061789 1.0913548 1.1055249
## Cluster 3 0.8027901 0.9122709 1.0036851 1.0812922 1.0678113 1.0677163 1.0095674
## Cluster 4 0.8261625 0.8673285 0.9043177 0.9213682 0.8485884 0.8033321 0.7819747
## Cluster 5 0.4822802 0.5813664 0.8068836 0.8705948 0.8613621 0.8359828 0.8710819
                  9259
                            9260
                                                           9263
                                                                     9264
##
                                      9261
                                                 9262
                                                                               9265
## Cluster 1 0.9650849 0.9283395 0.8854748 0.8125676 0.7796605 0.7083966 0.6162918
## Cluster 2 1.0448534 1.0168123 1.0062639 0.9205924 0.8558827 0.8244897 0.7344516
## Cluster 3 0.9323957 0.9261943 0.9202014 0.8865986 0.8966014 0.8331050 0.7556468
## Cluster 4 0.7262130 0.6798917 0.6967112 0.6263574 0.5790469 0.5596245 0.5290542
## Cluster 5 0.8021379 0.8034138 0.8300086 0.8504612 0.8635776 0.8194052 0.8468750
##
                  9266
                            9267
                                      9268
                                                 9269
                                                           9270
                                                                     9271
                                                                               9272
```

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## Cluster 1 0.5234310 0.4312692 0.3251525 0.2623475 0.2318966 0.2018899 0.1802374
## Cluster 2 0.6586833 0.5060645 0.3978123 0.3103402 0.2506452 0.1944868 0.1850997
## Cluster 3 0.6996950 0.6009943 0.4788340 0.4215007 0.3444780 0.3083447 0.2549518
## Cluster 4 0.5087184 0.4236787 0.3657870 0.3292708 0.3052708 0.2811083 0.2423249
## Cluster 5 0.8429353 0.7970948 0.6773448 0.5905086 0.5304095 0.4450517 0.3389181
                  9273
                            9274
                                      9275
                                                9276
                                                           9277
                                                                     9278
## Cluster 1 0.1746592 0.1686167 0.1689761 0.1741499 0.1704403 0.1838568 0.1871008
## Cluster 2 0.1768475 0.1719179 0.1636774 0.1519765 0.1598534 0.1785513 0.1922581
## Cluster 3 0.2346454 0.2215589 0.2120284 0.2027603 0.2040397 0.2128908 0.2282837
## Cluster 4 0.2368664 0.2564657 0.2478556 0.2583213 0.2679314 0.2863502 0.3380325
  Cluster 5 0.3335216 0.2891336 0.2778879 0.3064397 0.3024569 0.2970819 0.3110603
                                                                     9285
                  9280
                            9281
                                      9282
                                                9283
                                                           9284
                                                                               9286
## Cluster 1 0.2009761 0.2269072 0.2749284 0.3505040 0.4392467 0.5846936 0.6593528
## Cluster 2 0.2195279 0.2474135 0.2909531 0.3690733 0.4377537 0.4551349 0.4896804
## Cluster 3 0.2354823 0.2546426 0.2807787 0.3196851 0.3848369 0.4455702 0.5121362
## Cluster 4 0.3799495 0.4627545 0.6047509 0.6488231 0.7125235 0.6333430 0.5560578
## Cluster 5 0.2988664 0.3209784 0.3278534 0.3589612 0.3819267 0.4285948 0.4774224
##
                  9287
                            9288
                                      9289
                                                9290
                                                           9291
                                                                     9292
                                                                               9293
## Cluster 1 0.7102361 0.7235398 0.7368037 0.7442507 0.7847599 0.8320782 0.8456737
## Cluster 2 0.4934721 0.4893196 0.4739824 0.4927683 0.4947067 0.5482229 0.5894751
## Cluster 3 0.6256652 0.6824482 0.7241035 0.7860695 0.8486908 0.7932028 0.8257660
## Cluster 4 0.5833538 0.6045487 0.6640469 0.5705090 0.6598231 0.6930722 0.6134621
## Cluster 5 0.4921552 0.4978750 0.5039871 0.5339871 0.5672414 0.5217112 0.5434957
                  9294
                            9295
                                      9296
                                                9297
                                                           9298
                                                                     9299
## Cluster 1 0.7794642 0.6994350 0.7178289 0.7308634 0.7574337 0.8087454 0.9149589
## Cluster 2 0.5506598 0.5533666 0.6203519 0.5619589 0.5597390 0.5961320 0.6969267
## Cluster 3 0.8053489 0.7852553 0.7795035 0.7720326 0.7958567 0.8934979 0.9528255
## Cluster 4 0.6372852 0.6190433 0.5855704 0.6401408 0.6531625 0.6623574 0.7299386
## Cluster 5 0.6148491 0.5666121 0.5382974 0.5311336 0.5578017 0.5673276 0.6251595
                  9301
                            9302
                                      9303
                                                9304
                                                           9305
                                                                     9306
                                                                               9307
## Cluster 1 1.1178369 1.3045239 1.2597798 1.1757480 1.1189058 1.0590451 1.0375836
## Cluster 2 0.8396334 1.0115601 1.1948328 1.2138387 1.2008152 1.1826686 1.1014927
## Cluster 3 1.0736965 1.1680000 1.1485887 1.1187064 1.0904908 1.0652043 1.0498695
## Cluster 4 0.8510108 1.0230686 0.9864874 0.9845343 0.9285451 0.8554079 0.8167437
## Cluster 5 0.7214698 0.8320216 0.8790129 0.8607457 0.8593276 0.8657845 0.9214440
                  9308
                            9309
                                                          9312
                                      9310
                                                9311
                                                                     9313
## Cluster 1 0.9169668 0.8573382 0.8098289 0.7329483 0.6594735 0.5843859 0.5134111
## Cluster 2 1.1024223 1.0245103 0.9177977 0.8530088 0.7777566 0.6897478 0.6094311
## Cluster 3 1.0074525 0.9579262 0.8697617 0.8138837 0.7783078 0.7563333 0.6924128
## Cluster 4 0.7393249 0.7423141 0.6638664 0.5955018 0.5401011 0.4973466 0.4518628
## Cluster 5 0.9024095 0.8734828 0.8399009 0.8450776 0.7765043 0.8002586 0.8049698
                  9315
                            9316
                                      9317
                                                9318
                                                                     9320
                                                           9319
                                                                               9321
## Cluster 1 0.4215862 0.3388753 0.2818316 0.2486790 0.2220690 0.1930093 0.1852440
## Cluster 2 0.4873754 0.4050909 0.3539326 0.2963548 0.2482845 0.2087683 0.1917859
## Cluster 3 0.5831220 0.5226780 0.4598085 0.4054695 0.3331830 0.2908809 0.2543007
## Cluster 4 0.4014332 0.3701011 0.3361227 0.3036354 0.2762238 0.2728592 0.2590253
## Cluster 5 0.7501207 0.6654009 0.5738276 0.5322414 0.4887888 0.4397672 0.3878578
                            9323
                                                9325
                                                           9326
                                                                     9327
##
                  9322
                                      9324
                                                                               9328
## Cluster 1 0.1786844 0.1718621 0.1697401 0.1708011 0.1764019 0.1813355 0.1941578
## Cluster 2 0.1857742 0.1826569 0.1677654 0.1707625 0.1771554 0.1804487 0.2027449
## Cluster 3 0.2428454 0.2281574 0.2129206 0.2078156 0.2090922 0.2197206 0.2214298
## Cluster 4 0.2684910 0.2514838 0.2696715 0.2888809 0.3000614 0.3148700 0.3711769
## Cluster 5 0.3544569 0.3305172 0.3046681 0.3013922 0.2893534 0.2968448 0.3268793
##
                  9329
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                                                                     9334
                                                                               9335
```

```
## Cluster 1 0.2173886 0.2626684 0.3245557 0.4050915 0.5267122 0.6342520 0.7465875
## Cluster 2 0.2205777 0.2601789 0.2966950 0.3436129 0.4022874 0.5070645 0.6307155
## Cluster 3 0.2342284 0.2471092 0.2775858 0.3406085 0.4200567 0.5215362 0.5820397
## Cluster 4 0.4298303 0.5083105 0.5354549 0.5053718 0.6242744 0.6581408 0.6934693
## Cluster 5 0.3484741 0.3160129 0.3663793 0.3806336 0.4127845 0.4206034 0.4861466
                  9336
                                                           9340
                            9337
                                      9338
                                                9339
                                                                     9341
## Cluster 1 0.8817135 0.9503103 0.9365769 0.9374430 0.9582759 0.9746936 0.9060703
## Cluster 2 0.5918416 0.6153109 0.6261056 0.6773636 0.6608182 0.7247918 0.7284897
## Cluster 3 0.6613220 0.7295957 0.7682950 0.8652851 0.9498284 0.9439177 0.9552553
## Cluster 4 0.6499495 0.7097798 0.6391733 0.7181733 0.7298736 0.6403755 0.7054368
  Cluster 5 0.5252931 0.5593405 0.5233448 0.5944698 0.6503017 0.5931034 0.6217112
                  9343
                            9344
                                      9345
                                                9346
                                                           9347
                                                                     9348
                                                                               9349
## Cluster 1 0.8391565 0.7838462 0.7878952 0.7846167 0.8542958 0.9097706 1.0455491
## Cluster 2 0.6406569 0.6104282 0.6232874 0.5837507 0.6249971 0.7434047 0.9186276
## Cluster 3 0.9384496 0.8969872 0.8764582 0.8729475 0.8475475 0.9124624 0.9195957
## Cluster 4 0.6741949 0.6785018 0.7503430 0.7356715 0.7606354 0.7983177 0.9096643
## Cluster 5 0.5892974 0.5986336 0.6532414 0.6776940 0.6983491 0.6437026 0.8072802
##
                  9350
                            9351
                                      9352
                                                9353
                                                           9354
                                                                     9355
                                                                               9356
## Cluster 1 1.1566645 1.2169032 1.1451419 1.0958355 1.0525106 0.9759841 0.9446233
## Cluster 2 1.0329971 1.2082463 1.2280645 1.2570499 1.1605806 1.1151173 1.0600968
## Cluster 3 1.0719560 1.1370312 1.0618936 1.0197149 1.0142426 1.0038525 0.9560525
## Cluster 4 1.0317798 0.8772094 0.8779892 0.8579964 0.7900722 0.7745415 0.7255343
## Cluster 5 0.8683879 0.9062371 0.8668922 0.9162241 0.9116078 0.9547759 0.9040302
                  9357
                            9358
                                      9359
                                                9360
                                                           9361
                                                                     9362
## Cluster 1 0.8971379 0.7922347 0.7157639 0.6237241 0.5084350 0.4053740 0.2995902
## Cluster 2 1.0411701 0.9699003 0.8526921 0.7794809 0.6455836 0.4959472 0.3725073
## Cluster 3 0.9355957 0.8977035 0.8420270 0.7564809 0.7016936 0.5936965 0.4864270
## Cluster 4 0.7496606 0.6872744 0.6174224 0.5290361 0.5111011 0.4471264 0.3745776
## Cluster 5 0.9351681 0.9046466 0.8256724 0.8583319 0.8423664 0.8657155 0.7054569
##
                  9364
                            9365
                                      9366
                                                9367
                                                           9368
                                                                     9369
                                                                               9370
## Cluster 1 0.2304562 0.1933541 0.1778369 0.1691578 0.1602414 0.1552374 0.1548289
## Cluster 2 0.2684868 0.2231173 0.1978152 0.1802463 0.1716686 0.1651466 0.1642581
## Cluster 3 0.3916284 0.3309064 0.2819574 0.2469830 0.2245149 0.2105546 0.2054213
## Cluster 4 0.3241986 0.2895848 0.2689458 0.2483430 0.2430830 0.2417978 0.2511516
## Cluster 5 0.5783578 0.4651336 0.4056121 0.3828103 0.3201121 0.3178621 0.2728793
                            9372
                                      9373
                                                9374
                                                           9375
                  9371
                                                                     9376
## Cluster 1 0.1531074 0.1579244 0.1654721 0.1733329 0.2007321 0.2683899 0.4163846
## Cluster 2 0.1669326 0.1718094 0.1744633 0.1954223 0.2526979 0.3660176 0.4837654
## Cluster 3 0.1917532 0.1924667 0.2064638 0.2172369 0.2477858 0.2919277 0.3758454
## Cluster 4 0.2478303 0.2708448 0.2809097 0.3247292 0.4130036 0.6472635 0.7749097
## Cluster 5 0.2557112 0.2609009 0.2754095 0.2654353 0.3252241 0.3029828 0.4001897
                  9378
                            9379
                                      9380
                                                9381
                                                           9382
                                                                     9383
                                                                               9384
## Cluster 1 0.6329350 0.6621273 0.5928210 0.5617003 0.6004005 0.5202692 0.5379032
## Cluster 2 0.5597302 0.5264839 0.3952522 0.3384575 0.3674047 0.3309707 0.3093343
## Cluster 3 0.4614454 0.5259135 0.4708199 0.4552780 0.4585021 0.4815149 0.4887986
## Cluster 4 0.9150505 0.8442924 0.6529386 0.5458448 0.5071119 0.4803394 0.4353574
## Cluster 5 0.4200603 0.5834095 0.5277586 0.4427888 0.4199397 0.3668879 0.4264957
                  9385
                            9386
                                      9387
                                                9388
                                                           9389
                                                                     9390
##
                                                                               9391
## Cluster 1 0.5740663 0.5319576 0.5378077 0.5601353 0.5670517 0.5501353 0.5639045
## Cluster 2 0.2781202 0.3115748 0.3271466 0.3282610 0.3387155 0.2854457 0.2671935
## Cluster 3 0.4860979 0.5236965 0.5400468 0.5613603 0.5728539 0.6230113 0.6213021
## Cluster 4 0.4510108 0.4435235 0.4623032 0.4816751 0.5015812 0.4832491 0.4782094
## Cluster 5 0.3847629 0.3691078 0.3559267 0.3726422 0.3865517 0.3671078 0.3504828
##
                  9392
                            9393
                                      9394
                                                9395
                                                           9396
                                                                     9397
                                                                               9398
```

```
## Cluster 1 0.5579589 0.5764032 0.6335928 0.7612440 0.9192546 1.1499841 1.3801698
## Cluster 2 0.3177331 0.3291701 0.3786833 0.3979883 0.4701144 0.6856334 0.8763255
## Cluster 3 0.6270496 0.6835376 0.7307589 0.8420255 0.9618227 1.0223206 1.1052624
## Cluster 4 0.4388520 0.4775957 0.5747220 0.6873141 0.8106895 0.9042888 0.9860253
## Cluster 5 0.3469267 0.3858319 0.3801422 0.4112845 0.4863534 0.5872155 0.7003276
                  9399
                            9400
                                      9401
                                                9402
                                                           9403
                                                                     9404
## Cluster 1 1.2943050 1.1586485 1.1461366 1.0705172 1.0657003 0.9986074 0.9836976
## Cluster 2 1.0634399 1.1436012 1.1840528 1.2327185 1.1916012 1.1317625 1.1303109
## Cluster 3 1.1136028 1.0585390 1.0613674 1.0554482 1.0512496 0.9710979 0.9762879
## Cluster 4 1.0510072 0.9934043 0.9067726 0.8377906 0.7613646 0.8052166 0.7566534
  Cluster 5 0.8240776 0.8258276 0.8685302 0.8544655 0.8180259 0.8621121 0.8925172
                  9406
                            9407
                                      9408
                                                9409
                                                           9410
                                                                     9411
                                                                               9412
## Cluster 1 0.8829496 0.7585796 0.6177931 0.5313820 0.4144218 0.3053302 0.2370836
## Cluster 2 1.0499648 0.9958123 0.8272551 0.6443930 0.4941232 0.3607478 0.2687390
## Cluster 3 0.9071674 0.8743574 0.7977504 0.7084340 0.6181461 0.4755234 0.3957035
## Cluster 4 0.7856065 0.7150939 0.6048195 0.5208448 0.4331986 0.3659747 0.3154477
## Cluster 5 0.8861207 0.8391940 0.8130216 0.8087155 0.7975000 0.7306724 0.6173276
##
                  9413
                            9414
                                      9415
                                                9416
                                                           9417
                                                                     9418
                                                                               9419
## Cluster 1 0.1946061 0.1809682 0.1647825 0.1559867 0.1583607 0.1554708 0.1565570
## Cluster 2 0.2159296 0.1944487 0.1649941 0.1556628 0.1523284 0.1548035 0.1556246
## Cluster 3 0.3199376 0.2660411 0.2393915 0.2246028 0.2042695 0.2010028 0.1992355
## Cluster 4 0.2766498 0.2690469 0.2555560 0.2304188 0.2408267 0.2578628 0.2522924
## Cluster 5 0.4763966 0.4501336 0.3980948 0.3444569 0.3254569 0.2843017 0.2819267
                  9420
                            9421
                                      9422
                                                9423
                                                           9424
                                                                     9425
## Cluster 1 0.1565464 0.1658263 0.1774549 0.2058846 0.2590915 0.4154814 0.6065809
## Cluster 2 0.1518710 0.1555836 0.1915630 0.2672317 0.3705484 0.5134076 0.5817449
## Cluster 3 0.1929333 0.1972752 0.2112582 0.2314837 0.2865574 0.3343277 0.4391191
## Cluster 4 0.2836462 0.2849458 0.3248736 0.4307581 0.6290181 0.8101083 0.9863863
## Cluster 5 0.2716940 0.2800086 0.2761853 0.3388362 0.3605733 0.4437500 0.5045302
                  9427
                            9428
                                      9429
                                                9430
                                                           9431
                                                                     9432
                                                                               9433
## Cluster 1 0.6578793 0.5630690 0.5989536 0.5838024 0.5772321 0.5474032 0.5593289
## Cluster 2 0.5383695 0.3762287 0.2993842 0.2963050 0.2953402 0.2586129 0.2673578
## Cluster 3 0.5311050 0.5162908 0.4726681 0.4763092 0.4913730 0.4871816 0.4995574
## Cluster 4 0.8123141 0.6851047 0.5356895 0.4301480 0.4234657 0.4092058 0.4465271
## Cluster 5 0.5668621 0.5137284 0.4153879 0.3603362 0.3500216 0.3795991 0.3705129
                  9434
                            9435
                                      9436
                                                9437
                                                           9438
                                                                     9439
## Cluster 1 0.5102666 0.5464390 0.5529549 0.5641406 0.5205438 0.4984377 0.5344085
## Cluster 2 0.2330938 0.2576833 0.2796950 0.3194575 0.3024604 0.3075249 0.2802287
## Cluster 3 0.5193943 0.5175021 0.6138156 0.6105617 0.5701149 0.5988227 0.6406823
## Cluster 4 0.4406751 0.4191155 0.4184224 0.4237798 0.4006462 0.4054549 0.4316065
## Cluster 5 0.3947198 0.4451983 0.4007672 0.3585086 0.3367500 0.3398750 0.3539181
                  9441
                            9442
                                      9443
                                                9444
                                                           9445
                                                                     9446
                                                                               9447
## Cluster 1 0.5723793 0.6440690 0.7454377 0.9010570 1.1589536 1.3050371 1.3016618
## Cluster 2 0.2950792 0.3207155 0.3839589 0.4626452 0.6061144 0.8794604 1.1049150
## Cluster 3 0.6936156 0.7168794 0.8067504 0.9068043 0.9653106 1.1021986 1.0937787
## Cluster 4 0.4671336 0.5111083 0.6298339 0.7543466 0.8881552 1.0638303 0.9426318
## Cluster 5 0.3714138 0.4103836 0.4216552 0.5077974 0.6273750 0.7432759 0.8634828
                                      9450
##
                  9448
                            9449
                                                9451
                                                           9452
                                                                     9453
                                                                               9454
## Cluster 1 1.1520769 1.1095690 1.0960172 1.0426472 0.9768740 0.9623660 0.8351857
## Cluster 2 1.1525073 1.1716628 1.1438358 1.1583871 1.0935894 1.1342082 1.0351349
## Cluster 3 1.0571631 1.0409362 1.0496837 1.0453730 0.9957305 0.9398496 0.9076298
## Cluster 4 0.8705668 0.8620289 0.8407726 0.7791372 0.7982455 0.7782527 0.7382058
## Cluster 5 0.8603060 0.8522414 0.8460474 0.9058405 0.8695862 0.9215216 0.8430000
##
                  9455
                            9456
                                      9457
                                                9458
                                                           9459
                                                                     9460
                                                                               9461
```

```
## Cluster 1 0.7326194 0.6108846 0.5283462 0.4104536 0.3128833 0.2309655 0.1986061
## Cluster 2 0.9272170 0.8385660 0.7133607 0.5061935 0.3773666 0.2989912 0.2408182
## Cluster 3 0.8726454 0.7856255 0.7315078 0.5773830 0.4776525 0.3858709 0.3120979
## Cluster 4 0.6632708 0.5657690 0.5082671 0.3993466 0.3662274 0.3200866 0.2907653
## Cluster 5 0.8722457 0.8253362 0.7897069 0.7449267 0.6237931 0.5628319 0.4335647
                            9463
                                                9465
                                                           9466
                  9462
                                      9464
                                                                     9467
## Cluster 1 0.1658926 0.1641379 0.1531273 0.1509337 0.1502865 0.1480650 0.1550849
## Cluster 2 0.2043196 0.1809795 0.1659912 0.1645513 0.1617155 0.1711144 0.1665660
## Cluster 3 0.2769887 0.2398085 0.2202284 0.2079163 0.2024340 0.1934270 0.1955915
## Cluster 4 0.2647473 0.2535776 0.2587870 0.2425126 0.2449134 0.2472130 0.2914549
  Cluster 5 0.4152198 0.3856078 0.3172543 0.2949397 0.2906379 0.2591724 0.2686293
                            9470
                                      9471
                  9469
                                                9472
                                                           9473
                                                                     9474
                                                                               9475
## Cluster 1 0.1634602 0.1733621 0.2023501 0.2608581 0.4115265 0.5990650 0.6417759
## Cluster 2 0.1737537 0.2173754 0.2830499 0.3727742 0.4541496 0.5457419 0.5783754
## Cluster 3 0.2002284 0.2122766 0.2397092 0.2816184 0.3674000 0.4805376 0.5653929
## Cluster 4 0.282238 0.3236318 0.4124152 0.6544224 0.8323249 0.9212744 0.8587473
## Cluster 5 0.2850776 0.2666681 0.3072716 0.3116810 0.4007974 0.4809828 0.5617629
##
                  9476
                            9477
                                      9478
                                                9479
                                                           9480
                                                                     9481
                                                                               9482
## Cluster 1 0.6122268 0.6040531 0.5759337 0.5588064 0.5572984 0.5347440 0.5214615
## Cluster 2 0.4181496 0.3329589 0.2883402 0.2874399 0.2754282 0.2849677 0.2626393
## Cluster 3 0.5287816 0.4706255 0.4954936 0.5041957 0.4851943 0.5186170 0.5189830
## Cluster 4 0.6317329 0.5577365 0.4676823 0.4616787 0.3992671 0.3812130 0.4103105
## Cluster 5 0.4851983 0.3928147 0.4176164 0.4042672 0.3434267 0.3690172 0.3514612
                  9483
                            9484
                                      9485
                                                9486
                                                           9487
                                                                     9488
## Cluster 1 0.5047878 0.5837719 0.5808117 0.5646605 0.5636154 0.5549828 0.6286141
## Cluster 2 0.2408299 0.2642727 0.3117243 0.2871935 0.2621320 0.2996070 0.3334956
## Cluster 3 0.5335773 0.5296156 0.6094142 0.6127688 0.5975787 0.6112752 0.6834567
## Cluster 4 0.4166931 0.4415162 0.4733213 0.4722888 0.4764440 0.4939097 0.5623971
## Cluster 5 0.4001121 0.4016509 0.4114483 0.3816293 0.3657069 0.3796034 0.3923319
                  9490
                            9491
                                      9492
                                                9493
                                                           9494
                                                                     9495
                                                                               9496
## Cluster 1 0.6903382 0.7557401 0.9182042 1.1411631 1.3609271 1.2395146 1.1173342
## Cluster 2 0.3626393 0.3670762 0.4693021 0.6440499 0.8368094 0.9909296 1.0942639
## Cluster 3 0.7543660 0.8316298 0.9341064 0.9665574 1.0173645 1.0818525 1.0425830
## Cluster 4 0.5526498 0.5916679 0.7327726 0.8757220 0.9829747 0.9148917 0.8278953
## Cluster 5 0.4123836 0.4786983 0.5043233 0.6061983 0.7153060 0.8698233 0.8379353
                  9497
                            9498
                                                9500
                                                          9501
                                                                     9502
                                      9499
## Cluster 1 1.1134801 1.1005889 1.0387798 0.9542825 0.8951459 0.8434682 0.7466830
## Cluster 2 1.1789941 1.1651261 1.1465161 1.1332962 1.0945396 1.0728094 0.9688739
## Cluster 3 1.0272624 1.0120709 0.9508695 0.9537305 0.9400298 0.9024695 0.8589461
## Cluster 4 0.7397148 0.8172202 0.7659603 0.7460253 0.7259278 0.6521480 0.6434152
## Cluster 5 0.8674569 0.8023319 0.8249138 0.8500948 0.8231724 0.8397414 0.8637888
                  9504
                            9505
                                      9506
                                                9507
                                                           9508
                                                                     9509
                                                                               9510
## Cluster 1 0.6280080 0.4957666 0.3894854 0.3057798 0.2403886 0.1959655 0.1823156
## Cluster 2 0.8538856 0.6340176 0.5126598 0.3628328 0.2768182 0.2317273 0.2132903
## Cluster 3 0.7299872 0.7301021 0.6246411 0.5052454 0.4137035 0.3245759 0.2688454
## Cluster 4 0.5720614 0.5002274 0.4017581 0.3447581 0.3089386 0.2663971 0.2487762
## Cluster 5 0.7939957 0.8466810 0.7859828 0.7116293 0.5999181 0.4621078 0.4245905
                  9511
                            9512
##
                                      9513
                                                9514
                                                           9515
                                                                     9516
                                                                               9517
## Cluster 1 0.1627334 0.1603342 0.1693488 0.1540889 0.1435133 0.1475809 0.1604668
## Cluster 2 0.1957009 0.1759795 0.1621789 0.1654516 0.1673871 0.1617449 0.1859179
## Cluster 3 0.2444539 0.2277163 0.2077149 0.2029163 0.1976227 0.2007461 0.2014426
## Cluster 4 0.2385993 0.2254007 0.2235921 0.2421083 0.2276895 0.2728051 0.2908881
## Cluster 5 0.3769914 0.3424483 0.3040388 0.2681983 0.2544784 0.2591207 0.2846078
##
                  9518
                            9519
                                      9520
                                                9521
                                                          9522
                                                                     9523
                                                                               9524
```

```
## Cluster 1 0.1724390 0.1980875 0.2529708 0.4072281 0.6100106 0.6350040 0.5792202
## Cluster 2 0.2134428 0.2676422 0.3806598 0.4885630 0.6063255 0.5889531 0.4527390
## Cluster 3 0.2101404 0.2381319 0.2983518 0.3448794 0.4626113 0.5321489 0.5128397
## Cluster 4 0.3246679 0.4047256 0.6265415 0.8031119 0.8893827 0.8207004 0.6298014
## Cluster 5 0.2625000 0.3053966 0.3066078 0.3668578 0.4572198 0.5731207 0.5099914
                  9525
                                                9528
                                                           9529
                            9526
                                      9527
                                                                     9530
## Cluster 1 0.5875836 0.5334297 0.5240332 0.5121459 0.5162334 0.4956950 0.5164562
## Cluster 2 0.3498006 0.3145367 0.2937683 0.2735073 0.2655601 0.2761085 0.2827830
## Cluster 3 0.4638511 0.4565362 0.4562043 0.4868993 0.5187915 0.4958454 0.5125915
## Cluster 4 0.4932527 0.5070650 0.4134404 0.4016209 0.4313321 0.3999386 0.4110542
  Cluster 5 0.4134181 0.4111379 0.4063233 0.3839224 0.3524828 0.3775647 0.3706638
                  9532
                            9533
                                      9534
                                                9535
                                                           9536
                                                                     9537
                                                                               9538
## Cluster 1 0.5554430 0.5616207 0.5215597 0.5258117 0.5230557 0.5801950 0.6436459
## Cluster 2 0.2746305 0.3008680 0.2796452 0.2824399 0.2997243 0.3642405 0.4246979
## Cluster 3 0.5632709 0.5820667 0.5716496 0.5727404 0.6198369 0.6251404 0.6780667
## Cluster 4 0.4312599 0.4306570 0.4301155 0.4892058 0.4920939 0.5657329 0.5649567
## Cluster 5 0.4143491 0.4143836 0.4067284 0.3860000 0.3730129 0.3674655 0.3637931
##
                  9539
                            9540
                                      9541
                                                9542
                                                           9543
                                                                     9544
                                                                               9545
## Cluster 1 0.6997255 0.8956340 1.1186538 1.2355106 1.1700610 1.1263196 1.0570292
## Cluster 2 0.4087067 0.5041056 0.6518240 0.8931554 1.0769560 1.1179062 1.2022815
## Cluster 3 0.7933333 0.9059262 0.9828950 1.0764057 1.0742596 1.0701418 1.0290936
## Cluster 4 0.6118881 0.7138051 0.8946282 0.9698375 0.8895199 0.8403646 0.8476751
## Cluster 5 0.4121121 0.4649655 0.5602155 0.6899138 0.8187543 0.8629095 0.8466940
                  9546
                            9547
                                      9548
                                                9549
                                                           9550
                                                                     9551
## Cluster 1 1.0530292 0.9972334 0.9626844 0.9416751 0.8510663 0.7430159 0.6311963
## Cluster 2 1.0867038 1.0501349 1.0072669 1.0799648 0.9902610 0.8739912 0.7747214
## Cluster 3 1.0104227 0.9940780 0.9433589 0.9418326 0.9187206 0.8762383 0.7851035
## Cluster 4 0.7528014 0.7716245 0.7198231 0.7540072 0.7130722 0.6210181 0.5737148
## Cluster 5 0.8675733 0.8224871 0.8687026 0.8490776 0.8830431 0.9401638 0.8627328
                  9553
                            9554
                                      9555
                                                9556
                                                           9557
                                                                     9558
                                                                               9559
## Cluster 1 0.5400597 0.4281300 0.3111790 0.2548992 0.1992666 0.1809151 0.1655650
## Cluster 2 0.6509326 0.4853666 0.3654311 0.2717009 0.2230381 0.1874223 0.1747947
## Cluster 3 0.7139603 0.5815177 0.4860397 0.4088383 0.3293092 0.2824440 0.2501234
## Cluster 4 0.4841516 0.4355776 0.3523791 0.3270722 0.2976751 0.2671119 0.2554188
## Cluster 5 0.8769784 0.8252716 0.7044224 0.5744612 0.4534569 0.3910216 0.3734267
                  9560
                            9561
                                      9562
                                                9563
                                                           9564
                                                                     9565
## Cluster 1 0.1645106 0.1618090 0.1616141 0.1612215 0.1623793 0.1658700 0.1812149
## Cluster 2 0.1632933 0.1691848 0.1705748 0.1648240 0.1548798 0.1723196 0.2121818
## Cluster 3 0.2287759 0.2166270 0.2052369 0.2010170 0.2035348 0.2071660 0.2186241
## Cluster 4 0.2454729 0.2519783 0.2584982 0.2397617 0.2393863 0.2867617 0.3194296
## Cluster 5 0.3327500 0.3103750 0.3005216 0.2959397 0.2686164 0.2730172 0.2605043
                  9567
                            9568
                                      9569
                                                9570
                                                           9571
                                                                     9572
                                                                               9573
## Cluster 1 0.1997215 0.2682056 0.4019894 0.6145106 0.6331406 0.5825584 0.5351525
## Cluster 2 0.2745865 0.3465601 0.4790205 0.5020117 0.5299120 0.4200733 0.3524223
## Cluster 3 0.2398255 0.2791050 0.3477489 0.4505390 0.5180156 0.5135035 0.4937972
## Cluster 4 0.4015054 0.5971625 0.8180939 1.0248014 0.8593899 0.6642744 0.5223863
## Cluster 5 0.2519871 0.2805862 0.4192026 0.4158664 0.5264009 0.4279353 0.3985172
                  9574
                            9575
                                                           9578
                                                                     9579
##
                                      9576
                                                9577
                                                                               9580
## Cluster 1 0.5790040 0.5498448 0.5386207 0.4577825 0.4653873 0.5011963 0.5251711
## Cluster 2 0.3079384 0.2896100 0.2747889 0.2797361 0.2750704 0.2823284 0.3343167
## Cluster 3 0.5042567 0.4995121 0.4966057 0.5088610 0.4940766 0.5075915 0.5257291
## Cluster 4 0.4489242 0.4639711 0.4368700 0.4500614 0.3502635 0.3973610 0.4029928
## Cluster 5 0.3918276 0.3700905 0.3739267 0.4117629 0.3508750 0.3943664 0.3898621
##
                  9581
                            9582
                                      9583
                                                9584
                                                           9585
                                                                     9586
                                                                               9587
```

```
## Cluster 1 0.5769072 0.5208594 0.5105358 0.5551897 0.5713077 0.5871631 0.6991061
## Cluster 2 0.3268094 0.3298856 0.2966100 0.3016481 0.3352962 0.3931818 0.4035279
## Cluster 3 0.5500525 0.5812752 0.6038936 0.6085702 0.6557291 0.7461291 0.7400553
## Cluster 4 0.4181769 0.4140578 0.4458123 0.4742202 0.4615632 0.5434874 0.6735451
## Cluster 5 0.3913233 0.4107586 0.3991336 0.4444914 0.3950647 0.4203879 0.5089397
                            9589
                                                9591
                                                           9592
                                                                     9593
##
                  9588
                                      9590
## Cluster 1 0.8233806 1.0247997 1.1589642 1.1918727 1.1568011 1.1147692 1.0083793
## Cluster 2 0.4636833 0.6255220 0.8270499 0.9767713 1.0375865 1.1456716 1.1477713
## Cluster 3 0.8430199 0.9103816 0.9516610 1.0033887 0.9914823 1.0122156 1.0191021
## Cluster 4 0.8232671 0.7975921 0.8511047 0.8889170 0.8355776 0.7859495 0.7726787
  Cluster 5 0.5491121 0.6472974 0.7374914 0.8046767 0.8145302 0.8575776 0.8346767
                  9595
                            9596
                                      9597
                                                9598
                                                           9599
                                                                     9600
                                                                               9601
## Cluster 1 0.9278939 0.9031048 0.8307467 0.7837188 0.7273011 0.6698912 0.5905252
## Cluster 2 1.1252317 1.0843196 1.0368240 0.9818622 0.8915601 0.8479971 0.7284370
## Cluster 3 0.9840170 0.9625887 0.9433035 0.8643376 0.8077191 0.7902227 0.7416397
## Cluster 4 0.7110542 0.7189314 0.7100108 0.6569495 0.5869350 0.5460614 0.5179025
## Cluster 5 0.8254655 0.7993664 0.8054871 0.7932629 0.8168664 0.8199655 0.8313664
##
                  9602
                            9603
                                      9604
                                                9605
                                                           9606
                                                                     9607
                                                                               9608
## Cluster 1 0.5130172 0.3774390 0.3110902 0.2601538 0.2054509 0.1915491 0.1728408
## Cluster 2 0.6134780 0.5020850 0.3740792 0.2917947 0.2473167 0.2045982 0.1897683
## Cluster 3 0.6524652 0.5584879 0.4880284 0.4086652 0.3391149 0.2919078 0.2622213
## Cluster 4 0.4797220 0.4145271 0.3296751 0.3056498 0.3078881 0.2647581 0.2479531
## Cluster 5 0.8338793 0.7635388 0.7001379 0.6079569 0.5204957 0.4689526 0.3864569
                  9609
                            9610
                                      9611
                                                9612
                                                           9613
## Cluster 1 0.1601008 0.1639973 0.1619390 0.1590106 0.1634695 0.1828912 0.1836485
## Cluster 2 0.1743636 0.1723109 0.1666540 0.1569032 0.1764604 0.1922258 0.2112141
## Cluster 3 0.2297333 0.2221121 0.2129191 0.2167177 0.2087504 0.2143262 0.2231716
## Cluster 4 0.2630289 0.2763899 0.2662022 0.2520325 0.2825776 0.2943394 0.3826570
## Cluster 5 0.3913103 0.3419612 0.3073966 0.2960733 0.2909397 0.2775948 0.2982371
##
                  9616
                            9617
                                      9618
                                                9619
                                                           9620
                                                                     9621
                                                                               9622
## Cluster 1 0.2199416 0.2430690 0.3086353 0.4060517 0.4884284 0.5782255 0.6995106
## Cluster 2 0.2232170 0.2399589 0.2664047 0.3721789 0.4494604 0.5052141 0.5134076
## Cluster 3 0.2317220 0.2618582 0.2974411 0.3630567 0.4004312 0.4825248 0.5617163
## Cluster 4 0.4121083 0.4936390 0.5741661 0.6232708 0.6778051 0.6322780 0.6412924
## Cluster 5 0.3093491 0.3550043 0.3624957 0.3967371 0.4061379 0.4093578 0.4566552
                  9623
                                      9625
                                                9626
                                                           9627
                            9624
                                                                     9628
## Cluster 1 0.7959682 0.7972281 0.7784072 0.7855013 0.7638011 0.7671048 0.7987626
## Cluster 2 0.5434487 0.5025073 0.5738798 0.5321789 0.5421320 0.5734370 0.5270293
## Cluster 3 0.6109674 0.6673546 0.6997319 0.7672667 0.7947532 0.7941730 0.7796879
## Cluster 4 0.5901552 0.5926101 0.6322852 0.6930361 0.6314801 0.6073105 0.6211119
## Cluster 5 0.5320345 0.5216552 0.5019138 0.5776509 0.5546034 0.5001293 0.5743750
                  9630
                            9631
                                      9632
                                                9633
                                                           9634
                                                                     9635
                                                                               9636
## Cluster 1 0.7941645 0.7168992 0.6914005 0.6679390 0.6758329 0.7126950 0.8550690
## Cluster 2 0.5138065 0.4907683 0.4359560 0.4981613 0.5686657 0.5730029 0.5498915
## Cluster 3 0.7965532 0.7317972 0.7198936 0.7191844 0.7261830 0.7868241 0.8973943
## Cluster 4 0.5859025 0.5872383 0.6144946 0.5567401 0.6007617 0.6359603 0.6822708
## Cluster 5 0.5705043 0.5270086 0.5476078 0.5509828 0.5023190 0.5750905 0.6074957
                            9638
##
                  9637
                                      9639
                                                9640
                                                           9641
                                                                     9642
                                                                               9643
## Cluster 1 1.1009973 1.2581684 1.2508011 1.2453979 1.1737175 1.0681790 0.9569602
## Cluster 2 0.7053959 0.9263050 1.1205015 1.2293431 1.2063138 1.1358035 1.0999824
## Cluster 3 1.0162894 1.1485177 1.1600894 1.0996142 1.0424979 1.0018397 1.0056738
## Cluster 4 0.7733466 0.9680072 0.9589819 0.9042238 0.8030397 0.7978051 0.7772708
## Cluster 5 0.6956164 0.8742155 0.9116034 0.9121767 0.8840819 0.9131724 0.8550000
##
                  9644
                            9645
                                      9646
                                                9647
                                                           9648
                                                                     9649
                                                                               9650
```

```
## Cluster 1 0.9334907 0.8188727 0.7957825 0.7090995 0.6455570 0.5735650 0.4761048
## Cluster 2 1.0177537 0.9416569 0.8731906 0.8164956 0.7600411 0.7020088 0.6131173
## Cluster 3 0.9730426 0.9486255 0.8870369 0.8282582 0.8029418 0.7465901 0.6800128
## Cluster 4 0.7171877 0.7011588 0.6677509 0.6078123 0.5388231 0.5091011 0.4596895
## Cluster 5 0.8775776 0.9378491 0.8519612 0.8009526 0.7923233 0.7492026 0.7599655
                  9651
                            9652
                                                9654
                                                           9655
                                                                     9656
##
                                      9653
                                                                               9657
## Cluster 1 0.3780225 0.3089867 0.2589801 0.2198422 0.2038674 0.1974005 0.1766857
## Cluster 2 0.4801320 0.4044927 0.3200645 0.2711525 0.2212053 0.2157683 0.2066188
## Cluster 3 0.5584028 0.4891518 0.4092496 0.3484355 0.3035660 0.2843262 0.2601319
## Cluster 4 0.4099025 0.3827112 0.3164513 0.2763213 0.2702527 0.2669386 0.2709134
  Cluster 5 0.7205345 0.6650431 0.5751810 0.5256379 0.4571552 0.3817500 0.3723405
                  9658
                            9659
                                      9660
                                                9661
                                                           9662
                                                                     9663
                                                                               9664
## Cluster 1 0.1665332 0.1582533 0.1580000 0.1628143 0.1732175 0.1752122 0.1873475
## Cluster 2 0.2043226 0.1979238 0.2051584 0.2043900 0.1947126 0.2082375 0.2339707
## Cluster 3 0.2364113 0.2272695 0.2238525 0.2116454 0.2138993 0.2244823 0.2372582
## Cluster 4 0.2486101 0.2502022 0.2648881 0.2738159 0.2958014 0.3337906 0.3827256
## Cluster 5 0.3457069 0.3171681 0.3235862 0.3239784 0.2907759 0.3018233 0.2994095
##
                  9665
                            9666
                                      9667
                                                9668
                                                           9669
                                                                     9670
                                                                               9671
## Cluster 1 0.2129244 0.2555504 0.3128820 0.4248554 0.5506645 0.6655239 0.7714987
## Cluster 2 0.2309267 0.2486452 0.2874428 0.3662581 0.4495630 0.4584839 0.5404897
## Cluster 3 0.2552426 0.2669262 0.2989504 0.3697546 0.4474284 0.5675674 0.6571234
## Cluster 4 0.4339747 0.5096354 0.5341841 0.6001191 0.6613755 0.7186895 0.7008448
## Cluster 5 0.3263491 0.3375129 0.3656940 0.3751078 0.4393405 0.4716207 0.4988362
                  9672
                            9673
                                      9674
                                                9675
                                                           9676
                                                                     9677
## Cluster 1 0.9129761 0.9399602 0.9587493 0.9324443 0.9090676 0.9488369 0.9346592
## Cluster 2 0.5623783 0.6264956 0.5987537 0.6064692 0.6966686 0.6969971 0.6502845
## Cluster 3 0.7048213 0.8078128 0.8369333 0.8788908 0.9203617 0.9788809 0.8877816
## Cluster 4 0.7171949 0.6427292 0.7303177 0.7416715 0.7720217 0.7657112 0.6873827
## Cluster 5 0.5318405 0.5575776 0.5550948 0.6007672 0.6325259 0.6451552 0.5844784
##
                  9679
                            9680
                                      9681
                                                9682
                                                           9683
                                                                     9684
                                                                               9685
## Cluster 1 0.8052003 0.7477918 0.7443806 0.7696088 0.7976817 0.8368196 0.9565265
## Cluster 2 0.5491261 0.5325865 0.5697449 0.5761496 0.6205220 0.6329150 0.7180997
## Cluster 3 0.8905404 0.8913376 0.8508738 0.8299901 0.8309943 0.8697064 0.9160482
## Cluster 4 0.6368664 0.7259711 0.7439531 0.7709134 0.7471444 0.7751047 0.8833285
## Cluster 5 0.5443103 0.5587112 0.5661250 0.5514526 0.5587414 0.6480560 0.7073966
                  9686
                            9687
                                                9689
                                                           9690
                                      9688
                                                                     9691
## Cluster 1 1.1442255 1.1754469 1.1400225 1.0826910 1.0740809 1.0471724 1.0074125
## Cluster 2 0.9427977 1.0815836 1.0895982 1.1975132 1.1411906 1.1234194 1.0909824
## Cluster 3 1.0125348 1.0579475 1.0253645 1.0060440 0.9726326 0.9973433 0.9593674
## Cluster 4 0.9190036 0.9980397 0.9549567 0.9231227 0.9539603 0.8257617 0.7307004
## Cluster 5 0.8257629 0.9532414 1.0192586 0.9454138 0.9446638 0.9598233 0.9643707
                  9693
                            9694
                                      9695
                                                9696
                                                           9697
                                                                     9698
                                                                               9699
## Cluster 1 0.9015796 0.7846817 0.7181538 0.6578342 0.5292334 0.4178501 0.3018263
## Cluster 2 1.0914399 1.0246481 0.9196481 0.7893724 0.6269355 0.5111613 0.3668710
## Cluster 3 0.9419291 0.9039660 0.8500170 0.7853206 0.6985461 0.5991404 0.4957972
## Cluster 4 0.7145812 0.6689350 0.6350758 0.5835307 0.5275596 0.4683502 0.3899964
## Cluster 5 1.0042543 0.9085043 0.8241250 0.9071121 0.9008233 0.8913879 0.7388491
                            9701
                                      9702
                                                9703
                                                           9704
                                                                     9705
##
                  9700
                                                                               9706
## Cluster 1 0.2443077 0.2005385 0.1713806 0.1671936 0.1524085 0.1570809 0.1592056
## Cluster 2 0.2987507 0.2412082 0.1981026 0.1745132 0.1585220 0.1613372 0.1582933
## Cluster 3 0.4131589 0.3231532 0.2781291 0.2448752 0.2331957 0.2175319 0.2167560
## Cluster 4 0.3289603 0.2891444 0.2623971 0.2574404 0.2491625 0.2489892 0.2585451
## Cluster 5 0.6069698 0.4752026 0.4183103 0.3798276 0.3142371 0.3068750 0.2941897
##
                  9707
                            9708
                                      9709
                                                9710
                                                           9711
                                                                     9712
                                                                               9713
```

```
## Cluster 1 0.1571618 0.1698873 0.1714271 0.1832560 0.2023528 0.2635676 0.4138833
## Cluster 2 0.1664927 0.1596188 0.1715865 0.1990733 0.2532522 0.3348944 0.5226774
## Cluster 3 0.2176950 0.2127163 0.2130426 0.2274794 0.2503617 0.2965390 0.3793362
## Cluster 4 0.2693177 0.2659242 0.3015162 0.3400036 0.4708736 0.6389675 0.8854477
## Cluster 5 0.2899095 0.2872457 0.3157112 0.2927026 0.3332629 0.3081336 0.4152716
                  9714
                                                                     9719
                            9715
                                      9716
                                                9717
                                                          9718
## Cluster 1 0.5846048 0.6218660 0.5827944 0.5575438 0.5588740 0.5553780 0.5251114
## Cluster 2 0.5655953 0.5433343 0.4169912 0.3774106 0.3446452 0.3075103 0.3141085
## Cluster 3 0.5097745 0.5233801 0.5154908 0.4536908 0.4706411 0.4788440 0.5093106
## Cluster 4 0.9724260 0.8456679 0.6567040 0.5831155 0.5213466 0.4682238 0.3986245
## Cluster 5 0.4804828 0.5806078 0.4822802 0.4402974 0.3936595 0.4296422 0.3792198
                  9721
                            9722
                                      9723
                                                9724
                                                           9725
                                                                     9726
                                                                               9727
## Cluster 1 0.5524934 0.5614801 0.5424085 0.5593329 0.5836406 0.5455491 0.4996565
## Cluster 2 0.3043607 0.2779413 0.2820411 0.2789413 0.2821056 0.2727918 0.2730323
## Cluster 3 0.5321234 0.5952610 0.5795844 0.6329518 0.6510482 0.6301475 0.6377177
## Cluster 4 0.4043141 0.4488014 0.4676354 0.4445379 0.4938159 0.4938917 0.4229783
## Cluster 5 0.3865991 0.3986078 0.3687629 0.3678103 0.3898621 0.3657198 0.4025345
##
                  9728
                            9729
                                      9730
                                                9731
                                                           9732
                                                                     9733
                                                                               9734
## Cluster 1 0.5348820 0.5902135 0.6668714 0.7271605 0.8992666 1.1767745 1.3680690
## Cluster 2 0.3008416 0.3295924 0.4172229 0.4765748 0.5188094 0.6820029 0.8581525
## Cluster 3 0.6175773 0.6779518 0.7487929 0.8047844 0.9499929 1.0278709 1.0927730
## Cluster 4 0.4896570 0.5658159 0.6335271 0.7824296 0.8752022 0.8636715 0.8971444
## Cluster 5 0.3958621 0.4770216 0.4874440 0.5046466 0.5194871 0.6131121 0.7675000
                  9735
                            9736
                                      9737
                                                9738
                                                           9739
## Cluster 1 1.2799748 1.1603316 1.1067082 1.1027016 1.0101684 1.0261260 0.9624642
## Cluster 2 1.0937185 1.1811906 1.2695953 1.2187566 1.1651261 1.0860264 1.1185073
## Cluster 3 1.1387617 1.1085277 1.1077390 1.0385560 0.9963348 0.9630723 0.9686809
## Cluster 4 0.9834116 0.9211011 0.9567906 0.8354801 0.7971264 0.7678809 0.8061264
## Cluster 5 0.8684397 0.9165388 0.9345043 0.8975560 0.8974828 0.8694741 0.9036767
##
                  9742
                            9743
                                      9744
                                                9745
                                                           9746
                                                                     9747
                                                                               9748
## Cluster 1 0.8445212 0.7193289 0.6005517 0.5116207 0.3992798 0.2921101 0.2320477
## Cluster 2 1.0302874 0.8956364 0.8150704 0.5985132 0.4414545 0.3313255 0.2542199
## Cluster 3 0.8852681 0.8678241 0.7658284 0.6887504 0.6051872 0.4802454 0.4013631
## Cluster 4 0.7822527 0.6681552 0.5986787 0.5044116 0.4276823 0.3382635 0.2802599
## Cluster 5 0.8320647 0.8439224 0.8287716 0.8186293 0.7894224 0.7061466 0.5668750
                  9749
                            9750
                                      9751
                                                9752
                                                          9753
                                                                     9754
## Cluster 1 0.1906326 0.1720836 0.1577188 0.1535292 0.1589907 0.1544111 0.1548011
## Cluster 2 0.2121525 0.1918152 0.1669238 0.1641144 0.1619413 0.1632405 0.1638944
## Cluster 3 0.3254610 0.2783433 0.2495986 0.2274496 0.2053645 0.1932057 0.1924993
## Cluster 4 0.2467617 0.2494007 0.2232383 0.2147292 0.2206751 0.2342310 0.2426101
## Cluster 5 0.4873276 0.4533664 0.3901466 0.3514784 0.3118534 0.2865259 0.2838707
                  9756
                            9757
                                      9758
                                                9759
                                                          9760
                                                                     9761
                                                                               9762
## Cluster 1 0.1552374 0.1697798 0.1723727 0.2154098 0.2839814 0.4250172 0.5829761
## Cluster 2 0.1583255 0.1652170 0.1932669 0.2555279 0.3521290 0.4962551 0.5957771
## Cluster 3 0.2009915 0.2006156 0.2147957 0.2531574 0.3013887 0.3851191 0.4719972
## Cluster 4 0.2480866 0.2659711 0.3494260 0.4375162 0.6201372 0.8359964 1.0014477
## Cluster 5 0.2718190 0.2860819 0.2837543 0.3157759 0.3429828 0.4522026 0.5412414
                            9764
                                      9765
                                                9766
                                                           9767
                                                                     9768
##
                  9763
                                                                               9769
## Cluster 1 0.6540477 0.5758077 0.5355928 0.5537891 0.5674032 0.5090332 0.4859337
## Cluster 2 0.5298446 0.4229853 0.3002815 0.2761877 0.2722581 0.2681173 0.2278475
## Cluster 3 0.5034511 0.5052553 0.4598681 0.4341418 0.4539631 0.4875248 0.4837773
## Cluster 4 0.8129422 0.5932744 0.4887437 0.4802671 0.4373755 0.4123682 0.4243863
## Cluster 5 0.5237155 0.4876336 0.4135431 0.3892328 0.3982457 0.3847069 0.3695043
##
                  9770
                            9771
                                      9772
                                                9773
                                                           9774
                                                                     9775
                                                                               9776
```

```
## Cluster 1 0.4918528 0.5283541 0.5471406 0.5777109 0.5202268 0.5101393 0.5448475
## Cluster 2 0.2175249 0.2264311 0.2695924 0.2964135 0.2764780 0.2721261 0.2810792
## Cluster 3 0.5159035 0.5119943 0.5290652 0.5889007 0.6089106 0.5818156 0.5737730
## Cluster 4 0.4137834 0.4300578 0.4370650 0.4869711 0.4611661 0.4549603 0.4999134
## Cluster 5 0.3614095 0.3615431 0.3594052 0.3978362 0.3445431 0.3580862 0.3670000
                                                9780
                                                           9781
                                                                     9782
                  9777
                            9778
                                      9779
## Cluster 1 0.5836446 0.6510822 0.7758223 0.8856379 1.1305438 1.3054363 1.2916061
## Cluster 2 0.3065249 0.3626188 0.4269413 0.4833959 0.6575337 0.8899883 1.0838446
## Cluster 3 0.6459773 0.6905163 0.8118184 0.8941248 1.0070227 1.0596539 1.0703688
## Cluster 4 0.5247906 0.5681300 0.6717184 0.7567653 0.8707906 0.9501661 0.9866823
  Cluster 5 0.3965819 0.3871810 0.4323060 0.4993664 0.6182759 0.7800948 0.8393147
                  9784
                            9785
                                      9786
                                                9787
                                                           9788
                                                                     9789
                                                                               9790
## Cluster 1 1.1396127 1.1324390 1.0934841 1.0889430 1.0163462 0.9603568 0.8621088
## Cluster 2 1.1107947 1.1303900 1.1362463 1.1372933 1.0723255 1.1540792 1.1300000
## Cluster 3 1.0412766 1.0310014 1.0121532 0.9843901 0.9857915 0.9727447 0.9023092
## Cluster 4 0.9026606 0.8716426 0.7565884 0.8586679 0.8223899 0.7443827 0.7238123
## Cluster 5 0.8878750 0.9301853 0.8853491 0.8760647 0.8593233 0.8429267 0.8248621
##
                  9791
                            9792
                                      9793
                                                9794
                                                           9795
                                                                     9796
                                                                               9797
## Cluster 1 0.7354324 0.6196777 0.5353594 0.4032958 0.3043170 0.2354721 0.1923249
## Cluster 2 1.0001320 0.8854751 0.6493607 0.4902786 0.3575191 0.2567713 0.2088123
## Cluster 3 0.8497092 0.7459447 0.6881816 0.5972184 0.4801915 0.3712723 0.3038638
## Cluster 4 0.6337509 0.5860217 0.4913574 0.4093538 0.3221733 0.3047401 0.2558484
## Cluster 5 0.8331810 0.7960043 0.8391552 0.7066336 0.6003362 0.5116552 0.4647500
                  9798
                            9799
                                      9800
                                                9801
                                                           9802
## Cluster 1 0.1689377 0.1655000 0.1511393 0.1573130 0.1512334 0.1470782 0.1624244
## Cluster 2 0.1818035 0.1732023 0.1644868 0.1597097 0.1587566 0.1706217 0.1599560
## Cluster 3 0.2594610 0.2395787 0.2175674 0.2121078 0.2002879 0.1991589 0.2048865
## Cluster 4 0.2487184 0.2235487 0.2147292 0.2218989 0.2510397 0.2403430 0.2634693
## Cluster 5 0.4332069 0.3598103 0.2880517 0.2689655 0.2875000 0.2919181 0.2581164
##
                  9805
                            9806
                                      9807
                                                9808
                                                           9809
                                                                     9810
                                                                               9811
## Cluster 1 0.1721180 0.1806247 0.2006870 0.2634125 0.3927467 0.5867056 0.6500716
## Cluster 2 0.1679413 0.2063607 0.2568270 0.3502463 0.5442199 0.5937654 0.5715367
## Cluster 3 0.2026723 0.2106525 0.2407191 0.3146468 0.4003546 0.4791376 0.5253007
## Cluster 4 0.2655090 0.3165560 0.4043682 0.6132563 0.8375415 0.9032419 0.8319856
## Cluster 5 0.2729569 0.2490259 0.2873147 0.2826552 0.4090603 0.5038966 0.5094310
                  9812
                                                9815
                                                           9816
                            9813
                                      9814
                                                                     9817
## Cluster 1 0.5952825 0.5675345 0.5545318 0.5604987 0.5463196 0.5381008 0.4962586
## Cluster 2 0.3873988 0.3434839 0.3077067 0.2937185 0.2717947 0.2845689 0.2649941
## Cluster 3 0.4970085 0.4518780 0.4750681 0.4593972 0.4669418 0.5014610 0.5219489
## Cluster 4 0.6746354 0.5996570 0.5179567 0.4615596 0.4782238 0.4432491 0.4486534
## Cluster 5 0.4993060 0.4637026 0.4558017 0.3937328 0.3992543 0.4059310 0.4101853
                  9819
                            9820
                                      9821
                                                9822
                                                           9823
                                                                     9824
                                                                               9825
## Cluster 1 0.5068647 0.5336963 0.5439257 0.5315690 0.5429721 0.5298064 0.5324589
## Cluster 2 0.2606891 0.2575630 0.2875894 0.3205396 0.2643959 0.2702845 0.3014018
## Cluster 3 0.5324936 0.6021546 0.6516624 0.5947972 0.6093277 0.5873730 0.6478255
## Cluster 4 0.4400903 0.4638664 0.4477509 0.4434838 0.4193032 0.4207076 0.4522924
## Cluster 5 0.4376810 0.4008103 0.4301638 0.3865647 0.4489397 0.4183750 0.4184009
                  9826
                            9827
                                      9828
                                                9829
                                                           9830
                                                                     9831
##
                                                                               9832
## Cluster 1 0.5864721 0.6618660 0.8376326 1.0525252 1.2837467 1.2392692 1.1324668
## Cluster 2 0.3279238 0.3593167 0.4133372 0.6002463 0.8127097 1.0109326 1.0993636
## Cluster 3 0.6786000 0.7464255 0.8395007 0.8910383 0.9865064 1.0767901 1.0347504
## Cluster 4 0.5474404 0.6259458 0.6936065 0.7956715 0.9298989 0.9467690 0.8458375
## Cluster 5 0.3824397 0.3945690 0.4581897 0.5679397 0.7092112 0.7848578 0.9137500
##
                  9833
                            9834
                                      9835
                                                9836
                                                           9837
                                                                     9838
                                                                               9839
```

```
## Cluster 1 1.1154085 1.0710252 1.0380053 1.0250809 0.9752573 0.8350133 0.7429403
## Cluster 2 1.1956188 1.2232229 1.1893812 1.1208915 1.1011789 1.0359267 0.9383314
## Cluster 3 1.0529404 1.0306582 0.9648496 0.9468567 0.9469149 0.9268227 0.8334879
## Cluster 4 0.8679711 0.8655126 0.8030830 0.8057256 0.7550578 0.7291913 0.6884296
## Cluster 5 0.8378534 0.7876293 0.8035302 0.7854526 0.8827112 0.8351293 0.8705560
                  9840
                                                           9844
##
                            9841
                                      9842
                                                9843
                                                                     9845
## Cluster 1 0.5975093 0.4833090 0.3915769 0.3055279 0.2406950 0.1991353 0.1730690
## Cluster 2 0.8369765 0.6521877 0.5013578 0.3702141 0.2966804 0.2401056 0.2017419
## Cluster 3 0.7748567 0.7170000 0.5716879 0.4515461 0.3713589 0.3068426 0.2595660
## Cluster 4 0.5833105 0.4804874 0.4223863 0.3701336 0.3167978 0.2898773 0.2667040
  Cluster 5 0.8041121 0.7974741 0.7452414 0.6600345 0.5371293 0.4177974 0.3669655
                            9848
                  9847
                                      9849
                                                9850
                                                           9851
                                                                     9852
                                                                               9853
## Cluster 1 0.1612401 0.1589098 0.1540133 0.1565756 0.1510212 0.1636114 0.1708448
## Cluster 2 0.1883842 0.1743343 0.1712170 0.1662287 0.1614633 0.1632493 0.1726628
## Cluster 3 0.2405376 0.2208440 0.2025730 0.1999433 0.1885617 0.1991149 0.2013574
## Cluster 4 0.2584296 0.2354513 0.2171516 0.2409170 0.2455560 0.2472924 0.2718700
## Cluster 5 0.3178448 0.3218448 0.2947328 0.2702845 0.2690172 0.2737672 0.2669741
##
                  9854
                            9855
                                      9856
                                                9857
                                                           9858
                                                                     9859
                                                                               9860
## Cluster 1 0.1794695 0.2052042 0.2730504 0.4015703 0.5787334 0.6334589 0.5955119
## Cluster 2 0.2111584 0.2569736 0.3736422 0.5009589 0.5973167 0.5565513 0.4285308
## Cluster 3 0.2192426 0.2511702 0.2927220 0.3692213 0.4586766 0.5154312 0.4920908
## Cluster 4 0.3147076 0.4086570 0.6050072 0.8253466 1.0240686 0.8264079 0.6163538
## Cluster 5 0.2816681 0.3104655 0.3122802 0.4195345 0.4700474 0.5329698 0.4759353
                  9861
                            9862
                                      9863
                                                9864
                                                           9865
                                                                     9866
## Cluster 1 0.5644894 0.5786300 0.5835796 0.5656989 0.5114549 0.5175385 0.5492865
## Cluster 2 0.3162199 0.2753519 0.2879472 0.2798886 0.2224252 0.2589267 0.2439091
## Cluster 3 0.4482624 0.4727305 0.4815489 0.4971660 0.5039589 0.5213163 0.5449489
## Cluster 4 0.5022924 0.4593574 0.4942419 0.4056209 0.3789025 0.4266101 0.4580144
## Cluster 5 0.4298448 0.4189828 0.3926767 0.3677026 0.3422802 0.3559784 0.3691164
                  9868
                            9869
                                      9870
                                                9871
                                                           9872
                                                                     9873
                                                                               9874
## Cluster 1 0.5520040 0.5933408 0.5683156 0.5514987 0.5609297 0.6110358 0.6751724
## Cluster 2 0.2446246 0.2691408 0.2556686 0.2634721 0.2877478 0.3190059 0.4001085
## Cluster 3 0.5989220 0.6295830 0.5992667 0.6285986 0.6133660 0.6978312 0.7883518
## Cluster 4 0.4983610 0.4550433 0.4585993 0.4179242 0.4486931 0.5351625 0.5918809
## Cluster 5 0.4082888 0.4154267 0.3911940 0.3832974 0.4046164 0.4192543 0.4619181
                  9875
                            9876
                                                9878
                                                           9879
                                      9877
                                                                     9880
## Cluster 1 0.7860225 0.8957626 1.1041472 1.2731379 1.2399576 1.1365822 1.0883103
## Cluster 2 0.4846364 0.5200557 0.5880293 0.7871378 0.9736070 1.0520411 1.0583079
## Cluster 3 0.8869943 0.9274383 0.9802156 1.0581121 1.0628652 1.0263418 1.0435957
## Cluster 4 0.7416643 0.8294116 0.8238087 0.9445018 0.8683791 0.8491733 0.8266029
## Cluster 5 0.5215129 0.5785129 0.6540172 0.7688448 0.8288836 0.8131207 0.8533276
                  9882
                            9883
                                      9884
                                                9885
                                                           9886
                                                                     9887
                                                                               9888
## Cluster 1 1.0865040 0.9833806 0.9416326 0.9096592 0.8717268 0.7278037 0.6491485
## Cluster 2 1.0451056 1.0515425 1.0309238 1.0342874 0.9837713 0.9266598 0.8294047
## Cluster 3 1.0206284 0.9832908 0.9880794 0.9421730 0.8862652 0.8460043 0.7545121
## Cluster 4 0.7346823 0.7734729 0.7184404 0.7488412 0.6714838 0.6336065 0.5392310
## Cluster 5 0.7968448 0.8273836 0.8431250 0.9004957 0.8843276 0.8539483 0.9033793
                            9890
                                      9891
                                                9892
                                                           9893
                                                                     9894
##
                  9889
                                                                               9895
## Cluster 1 0.5188727 0.4366340 0.3230822 0.2523249 0.1986804 0.1833196 0.1649125
## Cluster 2 0.6478827 0.4884839 0.3674106 0.2730499 0.2284516 0.2064282 0.1810821
## Cluster 3 0.7077589 0.6098823 0.5074057 0.3930241 0.3302085 0.2879887 0.2476780
## Cluster 4 0.4712816 0.4195451 0.3767329 0.3067329 0.2600072 0.2518809 0.2503213
## Cluster 5 0.8270388 0.8055776 0.7287500 0.6230776 0.5103190 0.4419655 0.3826638
##
                  9896
                            9897
                                      9898
                                                9899
                                                           9900
                                                                     9901
                                                                               9902
```

```
## Cluster 1 0.1610332 0.1633515 0.1626021 0.1581525 0.1649934 0.1718077 0.1771154
## Cluster 2 0.1692903 0.1632874 0.1574575 0.1608211 0.1662786 0.1706100 0.1967859
## Cluster 3 0.2294567 0.2145801 0.2088979 0.2052227 0.1990369 0.2077362 0.2211319
## Cluster 4 0.2264296 0.2227401 0.2196931 0.2441047 0.2719747 0.2803502 0.3157798
## Cluster 5 0.3104569 0.3172371 0.2726810 0.2699267 0.2777112 0.2782759 0.2777672
                  9903
                            9904
                                                9906
                                                           9907
                                                                     9908
                                      9905
## Cluster 1 0.1944509 0.2504814 0.3859682 0.5517347 0.6276963 0.5978302 0.5882692
## Cluster 2 0.2470645 0.3496276 0.4731642 0.5636012 0.4925132 0.3806774 0.3146188
## Cluster 3 0.2596369 0.2927461 0.3575035 0.4628851 0.4915248 0.4675518 0.4540752
## Cluster 4 0.4144188 0.6098014 0.7756751 0.8909458 0.8196209 0.6510469 0.5335451
  Cluster 5 0.2943233 0.2861681 0.3863534 0.4813017 0.4837586 0.4338103 0.3662069
                            9911
                                      9912
                  9910
                                                9913
                                                           9914
                                                                     9915
## Cluster 1 0.5608329 0.5466538 0.5146684 0.4628501 0.4726061 0.4747573 0.4820464
## Cluster 2 0.2808592 0.2891760 0.3254076 0.2512346 0.2581554 0.2705806 0.2929238
## Cluster 3 0.4702411 0.4774340 0.4977121 0.4731489 0.5024213 0.5511901 0.5326184
## Cluster 4 0.4654910 0.4300433 0.4087401 0.4110469 0.3928412 0.3873682 0.4495632
## Cluster 5 0.3627931 0.3851853 0.3526250 0.2818664 0.3463793 0.3912284 0.3369741
##
                  9917
                            9918
                                      9919
                                                9920
                                                           9921
                                                                     9922
                                                                               9923
## Cluster 1 0.5293236 0.4864536 0.5053939 0.5069164 0.5599523 0.6325133 0.6893700
## Cluster 2 0.3043988 0.3018827 0.2898299 0.2556012 0.2936334 0.3759795 0.3824194
## Cluster 3 0.5997177 0.6025546 0.6047220 0.5878525 0.6209078 0.6851234 0.7382270
## Cluster 4 0.4139314 0.4447762 0.4535632 0.4423141 0.4877256 0.5965235 0.6927726
## Cluster 5 0.4026810 0.3902198 0.3430690 0.3998578 0.4012586 0.3796595 0.4293621
                  9924
                            9925
                                      9926
                                                9927
                                                           9928
                                                                     9929
## Cluster 1 0.7859085 0.9740557 1.1914814 1.2609151 1.1628700 1.1091048 1.0436485
## Cluster 2 0.4260469 0.5852023 0.7920528 0.9561730 1.0120704 1.1220469 1.0947390
## Cluster 3 0.8166326 0.8884369 0.9583901 1.0425787 1.0483986 1.0648965 0.9981163
## Cluster 4 0.8125054 0.7785235 0.8523394 0.9348051 0.9080397 0.8843466 0.8265560
## Cluster 5 0.4935388 0.5300560 0.6777457 0.8373491 0.8343966 0.7893060 0.7949655
                  9931
                            9932
                                      9933
                                                9934
                                                           9935
                                                                     9936
                                                                               9937
## Cluster 1 0.9840849 0.9401114 0.8894721 0.8322294 0.7517016 0.6543050 0.5856711
## Cluster 2 1.1264370 1.0822463 0.9763021 0.9310880 0.8530997 0.8361730 0.7536334
## Cluster 3 0.9751801 0.9631901 0.9195589 0.8668794 0.8415220 0.7739262 0.7323064
## Cluster 4 0.7575343 0.7442599 0.7537004 0.7067401 0.6332671 0.5445235 0.5044657
## Cluster 5 0.8077155 0.7898578 0.8665388 0.7993578 0.8188190 0.7887457 0.8489009
                  9938
                            9939
                                      9940
                                                          9942
                                                9941
                                                                     9943
## Cluster 1 0.4857334 0.3851565 0.2998329 0.2396088 0.2073408 0.1947918 0.1793820
## Cluster 2 0.6041232 0.4948475 0.3745777 0.3005924 0.2294282 0.2050059 0.1833695
## Cluster 3 0.6426426 0.5462652 0.4784766 0.3959390 0.3208241 0.2829915 0.2617957
## Cluster 4 0.4814260 0.3929386 0.3216570 0.2739242 0.2669170 0.2783249 0.2543394
## Cluster 5 0.8210776 0.7230474 0.6497112 0.5204483 0.4216250 0.4068966 0.3319612
                  9945
                            9946
                                      9947
                                                9948
                                                          9949
                                                                     9950
                                                                               9951
## Cluster 1 0.1691393 0.1680769 0.1595133 0.1592533 0.1633170 0.1678064 0.1795027
## Cluster 2 0.1798856 0.1703460 0.1604428 0.1574692 0.1751672 0.1788680 0.1772669
## Cluster 3 0.2304028 0.2241816 0.2114638 0.2111418 0.2107702 0.2183177 0.2229418
## Cluster 4 0.2484440 0.2568556 0.2487184 0.2623069 0.2811119 0.3102780 0.3701661
## Cluster 5 0.3171724 0.2819224 0.2617931 0.2690776 0.2898836 0.2581250 0.2812888
                                                9955
                                                           9956
##
                  9952
                            9953
                                      9954
                                                                     9957
                                                                               9958
## Cluster 1 0.2004642 0.2553077 0.3238103 0.4050650 0.5297135 0.6108143 0.6875570
## Cluster 2 0.2140704 0.2382757 0.2828328 0.3603871 0.4410909 0.4641906 0.4604399
## Cluster 3 0.2374284 0.2686567 0.3062284 0.3470468 0.4095035 0.4897305 0.5439504
## Cluster 4 0.4287653 0.5152310 0.6039747 0.6092347 0.7041264 0.7323646 0.6416751
## Cluster 5 0.2728017 0.2954440 0.3089095 0.3166983 0.3845733 0.4035474 0.4270905
##
                  9959
                            9960
                                      9961
                                                9962
                                                           9963
                                                                     9964
                                                                               9965
```

```
## Cluster 1 0.7344456 0.7457997 0.7490902 0.7019867 0.7455332 0.7740292 0.8277560
## Cluster 2 0.4926657 0.5359795 0.5470880 0.5497097 0.5061906 0.5515279 0.5643196
## Cluster 3 0.6137418 0.6744369 0.7536667 0.6964695 0.7290823 0.7855645 0.8015560
## Cluster 4 0.5845704 0.6493791 0.5876751 0.5744838 0.5620000 0.6196643 0.5895704
## Cluster 5 0.4634784 0.4825216 0.5850216 0.5409871 0.5941250 0.5228879 0.5387371
                  9966
                            9967
                                                9969
                                                           9970
                                      9968
                                                                     9971
## Cluster 1 0.8390371 0.7404032 0.7103846 0.7266393 0.6970597 0.7835040 0.8873196
## Cluster 2 0.4967947 0.5022698 0.4934633 0.4608270 0.4377537 0.5206950 0.6328211
## Cluster 3 0.8063433 0.8164255 0.7964667 0.8046199 0.7924468 0.8410525 0.9151092
## Cluster 4 0.5960505 0.5626606 0.5302924 0.5307762 0.5385993 0.5794007 0.7374729
  Cluster 5 0.5879353 0.5713664 0.5068664 0.6117888 0.5691164 0.5802629 0.6035000
                                                           9977
                            9974
                                      9975
                  9973
                                                9976
                                                                     9978
                                                                               9979
## Cluster 1 1.0373156 1.2544589 1.3000385 1.1709775 1.1855584 1.0433090 0.9927188
## Cluster 2 0.6829472 0.8666628 1.1431114 1.1015367 1.1467009 1.0722698 1.0328328
## Cluster 3 0.9431617 1.0531248 1.1365957 1.0803149 1.1099830 1.0674284 0.9993688
## Cluster 4 0.7201625 0.8753971 0.9181986 0.8932960 0.8072852 0.7473177 0.7392130
## Cluster 5 0.7293664 0.8686983 0.9450603 0.9046681 0.9832414 0.8772672 0.9247069
##
                  9980
                            9981
                                      9982
                                                9983
                                                           9984
                                                                     9985
                                                                               9986
## Cluster 1 0.9170517 0.8294496 0.7598196 0.7169867 0.6415080 0.5821618 0.4728170
## Cluster 2 1.0035015 0.9665543 0.8961730 0.7850821 0.7217038 0.6202698 0.5461818
## Cluster 3 0.9600270 0.9521050 0.8558085 0.8092227 0.7949972 0.7077206 0.6582397
## Cluster 4 0.7453646 0.6812383 0.6370830 0.5966354 0.5169206 0.5093574 0.4549097
## Cluster 5 0.8731595 0.8325388 0.8658578 0.8257026 0.7808233 0.8573664 0.8195302
                  9987
                            9988
                                      9989
                                                9990
                                                           9991
                                                                     9992
## Cluster 1 0.3956936 0.3351870 0.2681300 0.2287772 0.2068833 0.1866538 0.1820186
## Cluster 2 0.4464985 0.3654633 0.2897801 0.2460704 0.2174194 0.1887683 0.1969120
## Cluster 3 0.5687887 0.4914099 0.4039191 0.3510936 0.3325489 0.2994071 0.2760667
## Cluster 4 0.3784910 0.3474513 0.3514224 0.3038231 0.2866931 0.2665018 0.2618412
## Cluster 5 0.7452931 0.6530690 0.5827328 0.5115603 0.4670647 0.4102543 0.3666379
##
                  9994
                            9995
                                      9996
                                                9997
                                                           9998
                                                                     9999
                                                                              10000
## Cluster 1 0.1687692 0.1630836 0.1605716 0.1614310 0.1666459 0.1763740 0.1932042
## Cluster 2 0.1766100 0.1642581 0.1693724 0.1681613 0.1624399 0.1772698 0.2053695
## Cluster 3 0.2572667 0.2441759 0.2246043 0.2231801 0.2223220 0.2325589 0.2312482
## Cluster 4 0.2662130 0.2569675 0.2702238 0.2694946 0.3180794 0.3697798 0.4198484
## Cluster 5 0.3531422 0.3174914 0.2996897 0.3162543 0.2712716 0.2684569 0.3104914
                 10001
                           10002
                                     10003
                                               10004
                                                         10005
                                                                    10006
                                                                              10007
## Cluster 1 0.2124072 0.2423674 0.3060557 0.4301936 0.5345544 0.6241857 0.7052188
## Cluster 2 0.2361965 0.2667537 0.2737507 0.3174370 0.4288856 0.4901994 0.4995748
## Cluster 3 0.2453078 0.2658085 0.3014468 0.3467333 0.4202270 0.4774142 0.5944993
## Cluster 4 0.4408773 0.4715379 0.5444260 0.5696354 0.5538736 0.6334079 0.6950578
## Cluster 5 0.3074181 0.3009353 0.3530000 0.3725000 0.4512629 0.4837543 0.5254914
                 10008
                           10009
                                     10010
                                               10011
                                                         10012
                                                                    10013
                                                                              10014
## Cluster 1 0.7812878 0.8108302 0.8657971 0.9114019 0.9147202 0.9428939 0.8844324
## Cluster 2 0.5240909 0.5404692 0.6008651 0.6584956 0.7019912 0.7011408 0.6023754
## Cluster 3 0.6490652 0.7416468 0.8339348 0.9056837 0.9756270 1.0204255 0.9759645
## Cluster 4 0.6751733 0.6583755 0.6767040 0.7695162 0.8184549 0.6878339 0.7039314
## Cluster 5 0.5430647 0.5533879 0.5644698 0.6127931 0.6075560 0.6395733 0.6234655
##
                 10015
                           10016
                                     10017
                                               10018
                                                          10019
                                                                    10020
                                                                              10021
## Cluster 1 0.8403594 0.7963780 0.7859655 0.8401830 0.8783660 0.9163170 1.0113183
## Cluster 2 0.6209648 0.6458974 0.5986833 0.6158416 0.6779648 0.7562023 0.8248358
## Cluster 3 0.9613915 0.8957645 0.8363489 0.8446837 0.8245745 0.8307121 0.8700539
## Cluster 4 0.7696679 0.7147112 0.7111769 0.7075162 0.7942166 0.8867942 0.8883357
## Cluster 5 0.6008147 0.5315905 0.5294784 0.5534397 0.6467155 0.6310172 0.6856422
##
                 10022
                           10023
                                     10024
                                               10025
                                                         10026
                                                                    10027
                                                                              10028
```

```
## Cluster 1 1.0821804 1.1326711 1.0768395 1.0629125 1.0210424 1.0093912 0.9477891
## Cluster 2 0.9512317 1.0306686 1.1552375 1.2177742 1.1569501 1.0867097 1.1017478
## Cluster 3 0.9867220 1.0461305 1.0445745 1.0331532 1.0084241 0.9836184 0.9250014
## Cluster 4 0.9537004 0.9433177 0.9307365 0.8598195 0.8318592 0.8025307 0.7477870
## Cluster 5 0.7718319 0.8757586 0.9411466 0.9161207 0.9110259 0.9467543 0.9943448
                 10029
                           10030
                                     10031
                                               10032
                                                          10033
                                                                    10034
##
                                                                              10035
## Cluster 1 0.9410040 0.8142215 0.7275371 0.5997215 0.4959947 0.3818103 0.3023780
## Cluster 2 1.0648856 0.9667067 0.8823959 0.7758240 0.6363695 0.5073314 0.4081906
## Cluster 3 0.9100468 0.8760085 0.8036170 0.7541106 0.6542624 0.5444993 0.4728809
## Cluster 4 0.7533971 0.6730830 0.5904657 0.4990650 0.4970253 0.4051155 0.3714404
  Cluster 5 1.0279655 0.9903190 0.8735905 0.8788534 0.9161897 0.8748879 0.7355733
                           10037
                                     10038
                 10036
                                               10039
                                                          10040
                                                                    10041
                                                                              10042
## Cluster 1 0.2399231 0.2026180 0.1808740 0.1717759 0.1635676 0.1618634 0.1615690
## Cluster 2 0.3054604 0.2317302 0.2037537 0.1866540 0.1809765 0.1712434 0.1701584
## Cluster 3 0.4026794 0.3266284 0.2799135 0.2615489 0.2391787 0.2239887 0.2068255
## Cluster 4 0.2912202 0.2579134 0.2531913 0.2435740 0.2411264 0.2327834 0.2486318
## Cluster 5 0.6232284 0.5046034 0.4310431 0.4041853 0.3399784 0.3467069 0.3136767
##
                 10043
                           10044
                                     10045
                                               10046
                                                          10047
                                                                    10048
                                                                              10049
## Cluster 1 0.1593515 0.1654363 0.1693130 0.1679125 0.2003740 0.2692573 0.4112347
## Cluster 2 0.1648446 0.1820616 0.2018768 0.1964457 0.2557419 0.3704399 0.4982258
## Cluster 3 0.2014681 0.2021801 0.2059972 0.2134255 0.2424284 0.2849518 0.3752723
## Cluster 4 0.2561227 0.2667148 0.2935126 0.3061986 0.4139458 0.6080433 0.8576209
## Cluster 5 0.2681293 0.2735948 0.2924009 0.2689397 0.2865086 0.3029138 0.4001078
                 10050
                           10051
                                     10052
                                               10053
                                                          10054
                                                                    10055
## Cluster 1 0.5446194 0.5954814 0.5712361 0.5836645 0.5372507 0.5605477 0.5295040
## Cluster 2 0.5656217 0.5149472 0.3696833 0.2886598 0.2990528 0.2789795 0.2786305
## Cluster 3 0.4753858 0.5401858 0.4859617 0.4654596 0.4941206 0.5015773 0.4828652
## Cluster 4 0.9480505 0.7396209 0.5945704 0.4878159 0.4695957 0.4615596 0.4557040
## Cluster 5 0.4636207 0.4911810 0.4680043 0.4932716 0.4261379 0.4368103 0.4249440
##
                 10057
                           10058
                                     10059
                                               10060
                                                          10061
                                                                    10062
                                                                              10063
## Cluster 1 0.5320477 0.5310464 0.5678355 0.6048050 0.6138833 0.5160676 0.5017865
## Cluster 2 0.2787038 0.2649091 0.2657801 0.2963519 0.2907566 0.2718240 0.3050733
## Cluster 3 0.4985277 0.5026837 0.5423461 0.5336638 0.6408156 0.6094936 0.5946553
## Cluster 4 0.4829783 0.4653610 0.4847653 0.4431372 0.4332455 0.4556715 0.4461011
## Cluster 5 0.4143405 0.4268664 0.4391379 0.3861207 0.4093405 0.4090948 0.4129052
                           10065
                                     10066
                                               10067
                                                          10068
                 10064
                                                                    10069
                                                                              10070
## Cluster 1 0.5330517 0.5982082 0.6970371 0.7319284 0.8996499 1.1473342 1.3530676
## Cluster 2 0.3145543 0.3392463 0.3637243 0.3907449 0.4726628 0.6253226 0.8728446
## Cluster 3 0.6055546 0.6644213 0.7310652 0.8297759 0.8881518 0.9289617 1.0248809
## Cluster 4 0.4876318 0.5342996 0.5889819 0.6760469 0.7655235 0.8790433 0.9301552
## Cluster 5 0.3746724 0.3862026 0.4124440 0.3911638 0.4945991 0.5723405 0.7976207
                 10071
                           10072
                                     10073
                                               10074
                                                          10075
                                                                    10076
                                                                              10077
## Cluster 1 1.2998793 1.1891088 1.1375252 1.1018581 1.0277653 1.0157029 0.9525252
## Cluster 2 1.1098680 1.1236188 1.1932258 1.2027273 1.1538475 1.1024194 1.1006950
## Cluster 3 1.0713660 1.0231206 1.0269518 1.0057092 0.9745787 0.9498809 0.8962780
## Cluster 4 1.0043971 0.8805379 0.9224332 0.8218303 0.7828303 0.7567581 0.7509314
## Cluster 5 0.9217241 0.8355431 0.8817112 0.8373491 0.9030000 0.8884224 0.9314957
                           10079
                                     10080
                                                          10082
##
                 10078
                                               10081
                                                                    10083
                                                                              10084
## Cluster 1 0.8230464 0.7229841 0.6429907 0.5206631 0.4058899 0.3046472 0.2361751
## Cluster 2 1.0330850 1.0045836 0.8755015 0.6800352 0.4832287 0.3593930 0.2864047
## Cluster 3 0.8848142 0.8674752 0.7982865 0.6855702 0.6109872 0.4865872 0.3878482
## Cluster 4 0.6931625 0.6094621 0.6005848 0.4937762 0.4299495 0.3464801 0.3209567
## Cluster 5 0.9242155 0.9377629 0.8934483 0.8179612 0.7571681 0.6384138 0.5762414
##
                 10085
                           10086
                                     10087
                                               10088
                                                          10089
                                                                    10090
                                                                              10091
```

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## Cluster 1 0.1896419 0.1719788 0.1578090 0.1542095 0.1534284 0.1539191 0.1525703
## Cluster 2 0.2217947 0.2100674 0.1957507 0.1723783 0.1576950 0.1622786 0.1579501
## Cluster 3 0.2977957 0.2541050 0.2366723 0.2208638 0.2184085 0.2085702 0.2073844
## Cluster 4 0.2730722 0.2454874 0.2338014 0.2415415 0.2668773 0.2573971 0.2498917
## Cluster 5 0.5198060 0.4293664 0.3859655 0.3290905 0.3211336 0.2797500 0.2745948
                 10092
                           10093
                                     10094
                                               10095
                                                          10096
                                                                    10097
##
## Cluster 1 0.1574456 0.1595438 0.1734085 0.2021671 0.2752653 0.4257958 0.5714416
## Cluster 2 0.1600557 0.1688886 0.2070968 0.2618827 0.3671466 0.5346070 0.6124194
## Cluster 3 0.1988071 0.2079376 0.2139135 0.2502652 0.2856340 0.3675220 0.4342227
## Cluster 4 0.2716029 0.2965957 0.3371480 0.4263466 0.6695054 0.8273069 0.9307184
  Cluster 5 0.2570086 0.2726638 0.2497931 0.2833276 0.3305948 0.4426379 0.4815517
                 10099
                                     10101
                           10100
                                               10102
                                                          10103
                                                                    10104
                                                                              10105
## Cluster 1 0.5942095 0.5711167 0.5705902 0.5599761 0.5404377 0.5158037 0.4824218
## Cluster 2 0.5277273 0.3930762 0.3292434 0.2991642 0.2727977 0.2580645 0.2474311
## Cluster 3 0.5022851 0.4891518 0.4642298 0.4888454 0.4856071 0.4994766 0.4983475
## Cluster 4 0.7949928 0.5967509 0.4843105 0.4656065 0.4031841 0.4047184 0.3953394
## Cluster 5 0.5228578 0.5091164 0.4440776 0.4075517 0.3807198 0.4025862 0.4018103
##
                 10106
                           10107
                                     10108
                                               10109
                                                          10110
                                                                    10111
                                                                              10112
## Cluster 1 0.4451804 0.5109841 0.5561260 0.5501313 0.5200544 0.4637162 0.5193210
## Cluster 2 0.2595015 0.2613959 0.2775924 0.2928035 0.2685073 0.2614985 0.2817126
## Cluster 3 0.4985064 0.5398014 0.5720624 0.6253050 0.5840709 0.6144199 0.6058383
## Cluster 4 0.4179134 0.4917076 0.5141444 0.4591083 0.4538051 0.4413899 0.4702527
## Cluster 5 0.3954957 0.3875948 0.4127888 0.4178448 0.4137974 0.3699052 0.3708405
                 10113
                           10114
                                     10115
                                               10116
                                                          10117
                                                                    10118
## Cluster 1 0.5559337 0.6358833 0.7379430 0.8675066 1.0546313 1.2307759 1.2438767
## Cluster 2 0.3050616 0.3350117 0.3917801 0.4439179 0.5759707 0.8679853 1.0884692
## Cluster 3 0.6263716 0.7019191 0.7279617 0.8311064 0.8904993 0.9534000 1.0499277
## Cluster 4 0.5255957 0.5331444 0.5984982 0.7035632 0.8278953 0.9001300 0.9272671
## Cluster 5 0.4453103 0.4546250 0.4455388 0.4952931 0.5565474 0.6754440 0.8420431
##
                 10120
                           10121
                                     10122
                                               10123
                                                          10124
                                                                    10125
                                                                              10126
## Cluster 1 1.1581804 1.1037520 1.0806260 1.0381658 1.0128634 0.9616340 0.8654377
## Cluster 2 1.1525630 1.1394897 1.1862287 1.1599208 1.1473959 1.1398856 1.0950029
## Cluster 3 1.0385078 1.0221163 1.0239135 0.9813660 0.9540709 0.9408241 0.9217532
## Cluster 4 0.9115379 0.8713321 0.8261625 0.8674621 0.7516534 0.8158845 0.6962924
## Cluster 5 0.8207198 0.9141767 0.8921940 0.8852241 0.9374009 0.9642931 0.9066466
                 10127
                           10128
                                     10129
                                               10130
                                                          10131
                                                                    10132
                                                                              10133
## Cluster 1 0.7564231 0.6390557 0.5204695 0.4090676 0.3003952 0.2311260 0.1871645
## Cluster 2 1.0292903 0.8448006 0.7198915 0.5403079 0.3533196 0.2632962 0.2147478
## Cluster 3 0.8517064 0.8041050 0.7154270 0.5939177 0.4904440 0.3818241 0.2978511
## Cluster 4 0.6500325 0.5884513 0.5453285 0.4409495 0.3628664 0.3288881 0.2865018
## Cluster 5 0.8632802 0.8771336 0.8852414 0.8073578 0.7216164 0.6078017 0.5115560
                 10134
                           10135
                                     10136
                                               10137
                                                          10138
                                                                    10139
                                                                              10140
## Cluster 1 0.1653727 0.1564443 0.1538488 0.1504629 0.1515676 0.1509987 0.1591154
## Cluster 2 0.1905748 0.1602962 0.1710762 0.1727771 0.1672229 0.1648680 0.1617683
## Cluster 3 0.2527404 0.2222255 0.2150809 0.2131560 0.2000057 0.1886993 0.1906936
## Cluster 4 0.2660939 0.2474982 0.2482310 0.2342671 0.2414585 0.2533177 0.2862491
## Cluster 5 0.4539741 0.4298793 0.3660647 0.3877198 0.3523017 0.3281336 0.2878362
##
                 10141
                           10142
                                     10143
                                               10144
                                                          10145
                                                                    10146
                                                                              10147
## Cluster 1 0.1688780 0.1731114 0.2137016 0.2620066 0.4129377 0.6208581 0.6404456
## Cluster 2 0.1674457 0.2088651 0.2667537 0.3705894 0.5388123 0.5865249 0.5165601
## Cluster 3 0.1983135 0.2165929 0.2443418 0.2928000 0.3681858 0.4532426 0.5332950
## Cluster 4 0.2929458 0.3574440 0.4818989 0.6143791 0.8787581 0.9810253 0.8179711
## Cluster 5 0.2928190 0.2689095 0.3136336 0.3379138 0.4056552 0.4684310 0.5381466
##
                 10148
                           10149
                                     10150
                                               10151
                                                          10152
                                                                    10153
                                                                              10154
```

```
## Cluster 1 0.5750398 0.5331061 0.5623382 0.5428024 0.4865279 0.4824801 0.4846313
## Cluster 2 0.4089326 0.3234897 0.2934076 0.2756364 0.2715982 0.2710411 0.2872991
## Cluster 3 0.5057915 0.4802496 0.4846014 0.4693390 0.4730965 0.4862369 0.4973234
## Cluster 4 0.6812274 0.5900036 0.5210181 0.4913574 0.4782455 0.4034621 0.4385451
## Cluster 5 0.4757802 0.4179052 0.3895388 0.3932500 0.3879224 0.3502586 0.3775259
                           10156
                                                         10159
                                                                    10160
##
                 10155
                                     10157
                                               10158
## Cluster 1 0.4777268 0.5258859 0.5409615 0.5128117 0.5245133 0.5406592 0.5682984
## Cluster 2 0.2536070 0.2619384 0.2662698 0.2858592 0.2566334 0.2553900 0.2860850
## Cluster 3 0.5252865 0.5328014 0.5938766 0.5839716 0.5750170 0.5457943 0.6144709
## Cluster 4 0.4746318 0.4533971 0.4525993 0.4590650 0.4397076 0.4543610 0.4877906
  Cluster 5 0.4039397 0.4140043 0.3702974 0.4020043 0.4154655 0.3670302 0.4234784
                                     10164
                 10162
                           10163
                                               10165
                                                         10166
                                                                    10167
                                                                              10168
## Cluster 1 0.6070159 0.6920398 0.8207228 0.9472440 1.1950265 1.2593435 1.1974456
## Cluster 2 0.3069736 0.3563666 0.4320821 0.6129296 0.7592933 0.9613871 1.1302258
## Cluster 3 0.6766894 0.7366752 0.8281844 0.8789759 0.9312652 0.9759333 0.9958610
## Cluster 4 0.5351769 0.5758700 0.7520578 0.8071372 0.8850253 0.8744693 0.8896715
## Cluster 5 0.3910431 0.4368060 0.4709741 0.5885991 0.7112371 0.7855259 0.8699914
##
                 10169
                           10170
                                     10171
                                               10172
                                                         10173
                                                                    10174
                                                                              10175
## Cluster 1 1.1549337 1.1031379 1.0670358 0.9656406 0.9326114 0.8402268 0.7661883
## Cluster 2 1.2669765 1.2020176 1.2066129 1.0831554 1.1469912 1.0948592 1.0468152
## Cluster 3 1.0137901 1.0031489 0.9988355 0.9582028 0.9664865 0.9215702 0.8648213
## Cluster 4 0.8729819 0.8530072 0.8390000 0.7596606 0.7689531 0.7238556 0.6646209
## Cluster 5 0.9354784 0.9764095 0.8759957 0.8208621 0.8775043 0.8915345 0.8737198
                 10176
                           10177
                                     10178
                                               10179
                                                          10180
                                                                    10181
## Cluster 1 0.6455531 0.5491459 0.4437268 0.3258515 0.2346565 0.1926207 0.1707546
## Cluster 2 0.8495777 0.6851437 0.5496979 0.3667977 0.2651965 0.2297067 0.1790674
## Cluster 3 0.8062766 0.7383035 0.5925035 0.5029418 0.3988553 0.3228312 0.2577518
## Cluster 4 0.5960217 0.4847473 0.4512816 0.3701805 0.3132419 0.2963755 0.2687509
## Cluster 5 0.8553233 0.9259655 0.8314267 0.7592457 0.6379612 0.5343319 0.4051078
##
                 10183
                           10184
                                     10185
                                               10186
                                                         10187
                                                                    10188
                                                                              10189
## Cluster 1 0.1648448 0.1571830 0.1558342 0.1536154 0.1557692 0.1518873 0.1639483
## Cluster 2 0.1745630 0.1612346 0.1625308 0.1667625 0.1599208 0.1539150 0.1627302
## Cluster 3 0.2262113 0.2139603 0.2091106 0.2084723 0.2035844 0.2006156 0.1995887
## Cluster 4 0.2704260 0.2466498 0.2373718 0.2471949 0.2716968 0.2973610 0.2985271
  Cluster 5 0.3516853 0.3239397 0.3099009 0.3111379 0.3046681 0.2927845 0.3010690
                 10190
                                     10192
                                               10193
                                                         10194
                           10191
                                                                    10195
## Cluster 1 0.1774271 0.2127294 0.2663568 0.4464708 0.5980305 0.6154085 0.5366897
## Cluster 2 0.1897742 0.2550293 0.3412786 0.5491848 0.5693226 0.5308739 0.3913930
## Cluster 3 0.2107362 0.2477504 0.3023078 0.3552652 0.4692426 0.4842255 0.4866496
## Cluster 4 0.3502635 0.4698700 0.6345560 0.8117617 1.0240397 0.8468628 0.6207726
## Cluster 5 0.2808405 0.3275172 0.3473362 0.4304612 0.4965259 0.5838879 0.4572672
                           10198
                                     10199
                                               10200
                                                         10201
                                                                    10202
                 10197
                                                                              10203
## Cluster 1 0.5233541 0.5303196 0.5519642 0.5065942 0.4545729 0.4535318 0.4778859
## Cluster 2 0.3303138 0.3229501 0.2935513 0.2732522 0.2508387 0.2556950 0.2537537
## Cluster 3 0.4777106 0.4689234 0.4984908 0.5075447 0.4889645 0.5095901 0.4938695
## Cluster 4 0.5550433 0.4857040 0.4255126 0.4184440 0.4473827 0.3952238 0.3870866
## Cluster 5 0.4116810 0.4039957 0.3916466 0.3867112 0.3844612 0.3652543 0.3873405
                 10204
                           10205
                                     10206
                                               10207
                                                          10208
##
                                                                    10209
                                                                              10210
## Cluster 1 0.5026923 0.5163263 0.4899562 0.5053674 0.5120279 0.5467175 0.5842480
## Cluster 2 0.2862933 0.3058974 0.2943754 0.2645513 0.2845249 0.2955455 0.3191818
## Cluster 3 0.5411064 0.5910709 0.5600908 0.5517390 0.5858738 0.6200440 0.6516142
## Cluster 4 0.4195487 0.3880939 0.4258231 0.3893032 0.4070000 0.5138303 0.5479495
## Cluster 5 0.3568922 0.3670431 0.3327026 0.3415862 0.3749871 0.3459526 0.3460302
##
                 10211
                           10212
                                     10213
                                               10214
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                                                                    10216
                                                                              10217
```

```
## Cluster 1 0.6559257 0.7609363 0.9677812 1.2032294 1.2286207 1.1514814 1.0554682
## Cluster 2 0.3397566 0.3780059 0.5317302 0.7193636 0.9855396 1.1670880 1.1948182
## Cluster 3 0.7237915 0.7813234 0.8060411 0.9202965 1.0070298 1.0413957 1.0266156
## Cluster 4 0.6606426 0.7236606 0.7424007 0.8328917 0.8519819 0.8992527 0.8592960
## Cluster 5 0.3924957 0.4347069 0.5104526 0.5976034 0.8250819 0.8722112 0.8508578
                 10218
                           10219
                                     10220
                                               10221
                                                         10222
                                                                    10223
##
## Cluster 1 1.1095345 1.0228236 1.0260942 0.9512281 0.8896711 0.7770199 0.6396406
## Cluster 2 1.2079443 1.1753138 1.1317977 1.1314340 1.0191525 0.9654927 0.8264076
## Cluster 3 0.9667773 0.9809589 0.9813064 0.9897461 0.9139220 0.8807305 0.8124780
## Cluster 4 0.8303357 0.8125090 0.7686931 0.7228664 0.6877653 0.6178917 0.5589314
  Cluster 5 0.8828793 0.8455733 0.8591767 0.9042284 0.9479224 0.8784612 0.8713319
                           10226
                                     10227
                 10225
                                               10228
                                                         10229
                                                                    10230
## Cluster 1 0.5332162 0.4251777 0.3097785 0.2447440 0.2003979 0.1804682 0.1656578
## Cluster 2 0.6451144 0.5011672 0.3849179 0.2959765 0.2250616 0.1887390 0.1816070
## Cluster 3 0.7312028 0.6061872 0.4927404 0.4036610 0.3280482 0.2812610 0.2507248
## Cluster 4 0.5126029 0.4653863 0.4185560 0.3419675 0.2897040 0.2701155 0.2683069
## Cluster 5 0.8932716 0.8875948 0.7536293 0.6481681 0.5330991 0.4554224 0.3854310
##
                 10232
                           10233
                                     10234
                                               10235
                                                          10236
                                                                    10237
                                                                              10238
## Cluster 1 0.1650464 0.1571724 0.1576340 0.1617745 0.1705517 0.1627520 0.1738170
## Cluster 2 0.1664399 0.1579472 0.1629384 0.1725161 0.1609443 0.1667390 0.1988944
## Cluster 3 0.2245021 0.2131901 0.2132738 0.2039702 0.1930227 0.1997319 0.2147574
## Cluster 4 0.2442924 0.2522852 0.2601408 0.2739242 0.3237545 0.2997581 0.3437726
## Cluster 5 0.3316552 0.3522155 0.3145819 0.2777069 0.2710517 0.3041379 0.2974095
                 10239
                           10240
                                     10241
                                               10242
                                                          10243
                                                                    10244
## Cluster 1 0.2029496 0.2575663 0.4400345 0.5863753 0.6294005 0.5824973 0.5688475
## Cluster 2 0.2590792 0.3694868 0.5670264 0.5886393 0.5266070 0.3591085 0.2968915
## Cluster 3 0.2418582 0.2910525 0.3623234 0.4314851 0.4939035 0.4892709 0.4914440
## Cluster 4 0.4325560 0.5973682 0.7796498 0.9080650 0.8032635 0.6437942 0.5704188
## Cluster 5 0.3207414 0.3340819 0.4001853 0.4804957 0.4829741 0.4857241 0.3890388
##
                 10246
                           10247
                                     10248
                                               10249
                                                         10250
                                                                    10251
                                                                              10252
## Cluster 1 0.5822546 0.5664748 0.5447838 0.5278475 0.4632387 0.4923037 0.5311552
## Cluster 2 0.3355689 0.3045220 0.2808416 0.2688006 0.2635630 0.2483578 0.2794076
## Cluster 3 0.5063745 0.4996567 0.5035248 0.5350766 0.4951716 0.5381915 0.5276128
## Cluster 4 0.5444801 0.5365560 0.4492419 0.4770686 0.4513321 0.4752996 0.4808953
## Cluster 5 0.3682716 0.3725690 0.4522069 0.3956552 0.4278103 0.3697026 0.3503578
                           10254
                                     10255
                                               10256
                                                         10257
                 10253
                                                                    10258
                                                                              10259
## Cluster 1 0.5655915 0.5197586 0.4909045 0.5035119 0.5578767 0.5730995 0.6339682
## Cluster 2 0.3185777 0.3034545 0.3018944 0.2865806 0.3496393 0.3818006 0.3994516
## Cluster 3 0.5942851 0.5424681 0.5647191 0.5576128 0.6508199 0.6663163 0.7681532
## Cluster 4 0.4484079 0.4369567 0.4194801 0.4353755 0.4293646 0.5105199 0.6090830
## Cluster 5 0.3666078 0.3925733 0.4096595 0.3927328 0.4261853 0.3922931 0.4630905
                 10260
                           10261
                                     10262
                                               10263
                                                         10264
                                                                    10265
                                                                             10266
## Cluster 1 0.7181631 0.8796180 1.0200292 1.1425013 1.1162149 1.1440557 1.067175
## Cluster 2 0.4323460 0.5468856 0.7254985 0.9964516 1.1136774 1.1289062 1.070780
## Cluster 3 0.8237830 0.8405262 0.9218085 1.0420028 1.0890369 1.0740383 1.048986
## Cluster 4 0.6654801 0.7297040 0.8013357 0.8619242 0.8221949 0.8688989 0.784083
## Cluster 5 0.4862155 0.5369095 0.6359138 0.8410302 0.8872888 0.9458060 0.940306
                           10268
                                     10269
##
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                                               10270
                                                         10271
                                                                    10272
                                                                              10273
## Cluster 1 1.0021989 0.9085093 0.8861645 0.8257109 0.7453621 0.6701976 0.5766154
## Cluster 2 1.0778974 1.0927419 1.0780264 1.0135660 0.9328475 0.7963431 0.7444457
## Cluster 3 0.9735986 0.9205660 0.9581688 0.8679504 0.8480794 0.8078823 0.7558553
## Cluster 4 0.7200614 0.6902960 0.7160903 0.6723863 0.6149422 0.5307329 0.4987292
## Cluster 5 0.9144957 0.8586897 0.8068707 0.8499741 0.9043793 0.9320172 0.9398491
##
                 10274
                           10275
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                                               10277
                                                         10278
                                                                    10279
                                                                              10280
```

```
## Cluster 1 0.5167626 0.4070305 0.2987162 0.2584443 0.2137056 0.1959934 0.1770623
## Cluster 2 0.6616891 0.5124340 0.3760176 0.2775924 0.2195161 0.1970411 0.1799238
## Cluster 3 0.6785504 0.5775376 0.4849730 0.3994468 0.3402553 0.2998000 0.2604922
## Cluster 4 0.5122202 0.4174801 0.3547148 0.2925560 0.3038736 0.2751913 0.2509639
## Cluster 5 0.9394741 0.8758233 0.7410948 0.6463147 0.5532716 0.4504052 0.3922759
                 10281
                           10282
                                     10283
                                               10284
                                                         10285
                                                                    10286
##
## Cluster 1 0.1747268 0.1760040 0.1654045 0.1574350 0.1638369 0.1675040 0.1745159
## Cluster 2 0.1731144 0.1704164 0.1657625 0.1587361 0.1743255 0.1793431 0.1912757
## Cluster 3 0.2441660 0.2283461 0.2212184 0.2187830 0.2256496 0.2305050 0.2471078
## Cluster 4 0.2551913 0.2689386 0.2679242 0.2837726 0.2757076 0.3230433 0.3701516
  Cluster 5 0.3386164 0.3264095 0.3137112 0.2870259 0.2985733 0.2763578 0.2997069
                           10289
                                     10290
                                               10291
                                                         10292
                 10288
                                                                    10293
                                                                              10294
## Cluster 1 0.2003156 0.2504814 0.3173541 0.4090597 0.4880133 0.5815756 0.6421393
## Cluster 2 0.2407889 0.2648710 0.3092551 0.3641584 0.3816657 0.4491349 0.5112053
## Cluster 3 0.2452397 0.2700128 0.2950255 0.3532043 0.3957220 0.4541191 0.5450043
## Cluster 4 0.3970505 0.4837870 0.6434946 0.6035632 0.6551336 0.6685668 0.6191047
## Cluster 5 0.3054914 0.3413017 0.3357543 0.3598319 0.4038491 0.4407284 0.5123836
##
                 10295
                           10296
                                     10297
                                               10298
                                                         10299
                                                                    10300
                                                                              10301
## Cluster 1 0.7352095 0.7252944 0.7542374 0.7822666 0.7503117 0.7647056 0.7539005
## Cluster 2 0.5294751 0.5574927 0.5772199 0.4819296 0.5222493 0.5547830 0.5502991
## Cluster 3 0.6021957 0.6471262 0.7195702 0.7442823 0.7751433 0.7647149 0.7633915
## Cluster 4 0.5985523 0.6133755 0.6698195 0.6253863 0.6300036 0.6329458 0.6086570
## Cluster 5 0.5020560 0.5082414 0.5855733 0.5605905 0.6758621 0.5573966 0.5645431
                 10302
                           10303
                                     10304
                                               10305
                                                         10306
                                                                    10307
## Cluster 1 0.7288581 0.7075902 0.7562268 0.6834642 0.7099164 0.7480212 0.8182374
## Cluster 2 0.5040088 0.5005806 0.5146422 0.5478270 0.5135806 0.6243783 0.6463460
## Cluster 3 0.7370057 0.6911957 0.7619220 0.7135461 0.6936993 0.7858610 0.8210000
## Cluster 4 0.6610036 0.5721047 0.5167798 0.5762491 0.6049134 0.7236715 0.7217473
## Cluster 5 0.5892026 0.5777198 0.5468103 0.5717112 0.5805302 0.6231466 0.6464052
##
                 10309
                           10310
                                     10311
                                               10312
                                                         10313
                                                                    10314
                                                                              10315
## Cluster 1 0.9789894 1.1138714 1.1980822 1.2511141 1.0938939 0.9876777 0.9901101
## Cluster 2 0.7435279 0.8865924 1.0021877 1.1421320 1.0999384 1.1381408 1.0286628
## Cluster 3 0.8223064 0.8909745 1.0482511 1.1187645 1.0609560 1.0018227 0.9959901
## Cluster 4 0.6907220 0.8182996 0.8338773 0.8217690 0.8136751 0.7470181 0.7228195
## Cluster 5 0.5942802 0.7218879 0.8657284 0.8652802 0.9011983 0.9123060 0.8799655
                                     10318
                                               10319
                                                         10320
                 10316
                           10317
                                                                    10321
                                                                              10322
## Cluster 1 0.9085809 0.8575491 0.7804788 0.6936844 0.6334403 0.5734019 0.4699642
## Cluster 2 0.9916334 0.9221554 0.8733196 0.7842933 0.7610352 0.6296921 0.5069707
## Cluster 3 0.9642482 0.9071716 0.8049546 0.7650270 0.7335021 0.6935220 0.5947447
## Cluster 4 0.6704260 0.6197581 0.5580614 0.5510181 0.5007401 0.4214874 0.3767798
## Cluster 5 0.8927888 0.8933060 0.8364569 0.8268190 0.8433922 0.8704741 0.8262586
                 10323
                           10324
                                     10325
                                               10326
                                                         10327
                                                                    10328
                                                                              10329
## Cluster 1 0.3844218 0.3165637 0.2614363 0.2250756 0.2056207 0.1865371 0.1766963
## Cluster 2 0.4300704 0.3451525 0.3006100 0.2634927 0.2420880 0.2089941 0.1837214
## Cluster 3 0.5543957 0.4755546 0.4098028 0.3573504 0.2978142 0.2733830 0.2541631
## Cluster 4 0.3469242 0.3330325 0.3113935 0.3087726 0.2672924 0.2462310 0.2454260
## Cluster 5 0.7755991 0.6703621 0.5920086 0.5091681 0.4312198 0.3618922 0.3725517
                           10331
                                               10333
##
                 10330
                                     10332
                                                          10334
                                                                    10335
                                                                              10336
## Cluster 1 0.1743581 0.1710822 0.1663899 0.1697679 0.1709019 0.1722918 0.1971724
## Cluster 2 0.1823255 0.1669355 0.1566804 0.1543490 0.1538299 0.1757713 0.2103021
## Cluster 3 0.2370369 0.2307106 0.2187773 0.2189248 0.2190199 0.2320837 0.2360809
## Cluster 4 0.2566931 0.2497256 0.2627112 0.2682166 0.3118556 0.3737112 0.3933863
## Cluster 5 0.3179267 0.3071379 0.3089224 0.3252026 0.2767802 0.3064224 0.3105776
##
                 10337
                           10338
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                                               10340
                                                         10341
                                                                    10342
                                                                              10343
```

```
## Cluster 1 0.2261366 0.2629337 0.3238700 0.4564244 0.5666751 0.6612095 0.7844947
## Cluster 2 0.2132581 0.2510616 0.2956686 0.3258446 0.3787625 0.4406422 0.5050997
## Cluster 3 0.2491333 0.2614255 0.2903773 0.3496582 0.4132071 0.5202071 0.6132014
## Cluster 4 0.4171552 0.5479603 0.5556354 0.5908989 0.6539386 0.6927509 0.6786931
## Cluster 5 0.3141595 0.3269526 0.3382284 0.4200388 0.4373793 0.5492543 0.5467241
                 10344
                                     10346
                                                          10348
##
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                                               10347
                                                                    10349
                                                                              10350
## Cluster 1 0.8354125 0.8323966 0.8678528 0.9219960 0.9029828 0.8923077 0.8239403
## Cluster 2 0.5384721 0.5908739 0.5805543 0.6103050 0.6673196 0.6116628 0.5974428
## Cluster 3 0.7514255 0.7614936 0.8008085 0.8437390 0.8878738 0.9371177 0.9168184
## Cluster 4 0.6362671 0.6854801 0.6674152 0.7190253 0.7232599 0.7065415 0.6433357
  Cluster 5 0.5832759 0.5575862 0.5597759 0.5866681 0.5690690 0.6296336 0.6723879
                           10352
                                     10353
                 10351
                                               10354
                                                          10355
                                                                    10356
                                                                              10357
## Cluster 1 0.7657944 0.7318939 0.7131565 0.7112706 0.7363064 0.7901698 0.8764390
## Cluster 2 0.5362082 0.5309501 0.5133812 0.5258915 0.5405630 0.5487126 0.6179912
## Cluster 3 0.8969929 0.8452411 0.8272270 0.7809376 0.7812809 0.8296270 0.7986638
## Cluster 4 0.7023646 0.5891877 0.5805451 0.6064874 0.6572491 0.6812383 0.7492671
## Cluster 5 0.6080647 0.5270345 0.5484483 0.5484138 0.5459483 0.5156164 0.6117328
##
                 10358
                           10359
                                     10360
                                               10361
                                                          10362
                                                                    10363
                                                                              10364
## Cluster 1 1.0224775 1.0833263 1.0806485 0.9842334 0.9596897 0.9603355 0.9005729
## Cluster 2 0.7988798 0.9791554 1.0405308 1.0858944 1.0391906 1.0525630 1.0352141
## Cluster 3 0.8635830 0.9289830 0.9824908 0.9791376 0.9512681 0.9483262 0.9243376
## Cluster 4 0.9354946 0.8970397 0.8197690 0.7730939 0.7363646 0.7159567 0.7119206
## Cluster 5 0.6590690 0.7323233 0.7535129 0.8248534 0.8678405 0.8087284 0.8086638
                 10365
                           10366
                                     10367
                                               10368
                                                          10369
                                                                    10370
## Cluster 1 0.8717188 0.7752281 0.6974310 0.5971485 0.4993156 0.4020225 0.3247918
## Cluster 2 0.9915689 0.8880557 0.7961085 0.6850059 0.5888094 0.4669853 0.3355484
## Cluster 3 0.8778184 0.8334312 0.7594071 0.6991603 0.6632709 0.5609135 0.4590766
## Cluster 4 0.6936173 0.6627148 0.6052960 0.5365596 0.4556931 0.4094332 0.3399350
## Cluster 5 0.8108147 0.8043060 0.8728319 0.8471681 0.8322198 0.8093664 0.7133966
##
                 10372
                           10373
                                     10374
                                               10375
                                                          10376
                                                                    10377
                                                                              10378
## Cluster 1 0.2509814 0.2054310 0.1818183 0.1801260 0.1623011 0.1607149 0.1568568
## Cluster 2 0.2692405 0.2071935 0.1927331 0.1645865 0.1508768 0.1501642 0.1472991
## Cluster 3 0.4042298 0.3395759 0.2853007 0.2422596 0.2250085 0.2106823 0.1981929
## Cluster 4 0.2941588 0.2641733 0.2547365 0.2250975 0.2157617 0.2231264 0.2556462
## Cluster 5 0.6232284 0.4905862 0.4682069 0.3968233 0.3353362 0.2995345 0.2989828
                 10379
                           10380
                                     10381
                                               10382
                                                          10383
                                                                    10384
                                                                              10385
## Cluster 1 0.1545544 0.1549111 0.1658607 0.1728859 0.1937268 0.2446870 0.3239218
## Cluster 2 0.1510352 0.1481114 0.1593372 0.1932287 0.2343636 0.3337067 0.4440352
## Cluster 3 0.1949915 0.1965773 0.1988085 0.1984610 0.2203745 0.2533404 0.2972511
## Cluster 4 0.2416318 0.2635018 0.2748592 0.3384946 0.4055379 0.5043141 0.6507184
## Cluster 5 0.2647802 0.2547328 0.2768233 0.2585216 0.2744569 0.3110733 0.3751466
                 10386
                           10387
                                     10388
                                               10389
                                                          10390
                                                                    10391
                                                                              10392
## Cluster 1 0.4308024 0.4908475 0.5213448 0.5609244 0.5866844 0.5883077 0.5862361
## Cluster 2 0.4323021 0.4418240 0.3645689 0.3172375 0.2983842 0.2814457 0.2777478
## Cluster 3 0.3333333 0.3864085 0.3970000 0.4473957 0.4622340 0.5097376 0.5533064
## Cluster 4 0.7509964 0.6772996 0.6570975 0.5424838 0.5059061 0.5412491 0.5409350
## Cluster 5 0.4195862 0.4458276 0.4349871 0.4511983 0.4147974 0.3330129 0.3760259
                           10394
                                     10395
##
                 10393
                                               10396
                                                          10397
                                                                    10398
                                                                              10399
## Cluster 1 0.5901790 0.5634337 0.6187454 0.5965411 0.6332188 0.5835265 0.5861538
## Cluster 2 0.2870733 0.2998944 0.2862434 0.3384340 0.3217889 0.3184663 0.3176833
## Cluster 3 0.6098908 0.5902255 0.5932979 0.6262028 0.6260695 0.6043177 0.6204113
## Cluster 4 0.4739458 0.4755668 0.4913610 0.4721661 0.4913863 0.4318484 0.4928339
## Cluster 5 0.3867672 0.3743233 0.4087371 0.4408405 0.4299310 0.5197716 0.4779353
##
                 10400
                           10401
                                     10402
                                               10403
                                                          10404
                                                                    10405
                                                                              10406
```

```
## Cluster 1 0.6205663 0.6304867 0.6960769 0.7358408 0.8818143 1.0591711 1.2586658
## Cluster 2 0.3476569 0.3520293 0.3929413 0.3825132 0.4217947 0.5556393 0.7221877
## Cluster 3 0.6730965 0.6920284 0.6890411 0.7810610 0.8746383 0.9066865 0.9738213
## Cluster 4 0.4433610 0.5552852 0.5883466 0.6620939 0.7897256 0.8119422 0.9037978
## Cluster 5 0.4264138 0.4342198 0.4903491 0.4423103 0.4472716 0.5230776 0.6994181
                 10407
                           10408
                                                          10411
                                                                    10412
##
                                     10409
                                               10410
## Cluster 1 1.2469350 1.1519231 1.1185769 1.0268833 0.9809775 0.9362891 0.9329960
## Cluster 2 0.9720176 1.0988006 1.1889707 1.1575836 1.1237566 1.0843138 1.0855689
## Cluster 3 1.0607007 0.9872057 1.0269560 1.0287986 0.9855957 0.9681986 0.9268979
## Cluster 4 0.9003935 0.8581408 0.8809928 0.8056606 0.8150217 0.7295090 0.7256859
  Cluster 5 0.8168966 0.8414914 0.9881509 0.9551767 0.8214612 0.8566336 0.8521638
                           10415
                 10414
                                     10416
                                               10417
                                                          10418
                                                                    10419
                                                                              10420
## Cluster 1 0.8243501 0.7346578 0.6442268 0.5240716 0.4187361 0.3058263 0.2403674
## Cluster 2 1.0307419 0.9229120 0.8598827 0.6562669 0.4907625 0.3683548 0.2766158
## Cluster 3 0.8775929 0.8343234 0.7991163 0.7096270 0.5645858 0.4773262 0.3791887
## Cluster 4 0.7010650 0.6137473 0.5417509 0.5028087 0.4429603 0.3836679 0.2912274
## Cluster 5 0.8586767 0.8410345 0.8781034 0.9106121 0.8065819 0.7325302 0.6411767
##
                 10421
                           10422
                                     10423
                                               10424
                                                          10425
                                                                    10426
                                                                              10427
## Cluster 1 0.2001857 0.1792122 0.1674629 0.1601167 0.1581883 0.1515875 0.1537626
## Cluster 2 0.2142258 0.1907331 0.1724721 0.1606158 0.1613666 0.1602463 0.1587038
## Cluster 3 0.3228624 0.2634326 0.2378156 0.2212397 0.2125546 0.2045532 0.1931319
## Cluster 4 0.2662274 0.2550433 0.2621444 0.2511408 0.2399964 0.2648195 0.2668051
## Cluster 5 0.5124914 0.4494009 0.3909310 0.3498534 0.2973319 0.2849828 0.2561466
                 10428
                           10429
                                     10430
                                               10431
                                                          10432
                                                                    10433
## Cluster 1 0.1517241 0.1568210 0.1670292 0.1943369 0.2585743 0.3756963 0.4788064
## Cluster 2 0.1502082 0.1628358 0.1924311 0.2545132 0.3776070 0.4753754 0.4631290
## Cluster 3 0.1954085 0.2016213 0.2107887 0.2461277 0.2792908 0.3541688 0.3871858
## Cluster 4 0.2684838 0.2866354 0.3463321 0.4238159 0.5305523 0.6897834 0.7765379
## Cluster 5 0.2679483 0.2840647 0.2533276 0.2925776 0.3250991 0.3835517 0.3672241
##
                 10435
                           10436
                                     10437
                                               10438
                                                          10439
                                                                    10440
                                                                              10441
## Cluster 1 0.5097427 0.5581751 0.5339960 0.5911008 0.6179297 0.6505053 0.5927573
## Cluster 2 0.5056158 0.4114545 0.3286510 0.3284076 0.3035924 0.2852903 0.3193109
## Cluster 3 0.4190596 0.4524794 0.4783957 0.4865333 0.5165645 0.5114411 0.5646681
## Cluster 4 0.7394404 0.6559603 0.5864260 0.5242960 0.5071552 0.4791733 0.4878267
## Cluster 5 0.4442371 0.4945517 0.4506767 0.3889224 0.4250517 0.4151810 0.3521552
                                               10445
                           10443
                                     10444
                                                          10446
                 10442
                                                                    10447
## Cluster 1 0.5696393 0.5752944 0.6310690 0.5974310 0.5554363 0.5401565 0.5908833
## Cluster 2 0.3040264 0.2443783 0.2768710 0.3066012 0.3223695 0.3220293 0.3046393
## Cluster 3 0.5681092 0.6209801 0.6465035 0.6559348 0.6707021 0.6667177 0.6497135
## Cluster 4 0.5660975 0.5316137 0.4747437 0.4767509 0.4432094 0.4588195 0.4486751
## Cluster 5 0.3370991 0.3457543 0.4137284 0.4287802 0.4726379 0.4741940 0.4725776
                 10449
                           10450
                                     10451
                                               10452
                                                          10453
                                                                    10454
                                                                              10455
## Cluster 1 0.6021008 0.6123700 0.6933382 0.7918236 1.0048249 1.1681512 1.2323979
## Cluster 2 0.3440411 0.3734047 0.3487771 0.4092053 0.4897390 0.6799589 0.9941848
## Cluster 3 0.6904950 0.7234383 0.7637887 0.8231929 0.8826113 0.9451064 1.0278085
## Cluster 4 0.4867004 0.5531661 0.6456859 0.6737942 0.7362708 0.8554224 0.8607329
## Cluster 5 0.4178448 0.3640474 0.4295259 0.4755819 0.5383664 0.6290259 0.8465000
                                     10458
##
                 10456
                           10457
                                               10459
                                                          10460
                                                                    10461
                                                                              10462
## Cluster 1 1.2075053 1.1467480 1.1558886 1.0827772 1.0282029 0.9296552 0.8547692
## Cluster 2 1.0985308 1.1957830 1.1691349 1.1608504 1.2052757 1.1129707 1.1008123
## Cluster 3 1.0652582 1.0714440 1.0030199 0.9532000 0.9976113 0.9551291 0.9226270
## Cluster 4 0.8560469 0.8732527 0.8552996 0.8286787 0.7926245 0.7652238 0.7192563
## Cluster 5 0.8783362 0.8779052 0.9189181 0.8910603 0.8708664 0.9395733 0.9827241
##
                 10463
                           10464
                                     10465
                                               10466
                                                          10467
                                                                    10468
```

```
## Cluster 1 0.7752347 0.6708435 0.5347056 0.4398594 0.3349324 0.2424032 0.2172812
## Cluster 2 0.9598240 0.8461672 0.6966950 0.5093021 0.3838827 0.2831437 0.2200968
## Cluster 3 0.8561801 0.7865844 0.7399106 0.6137745 0.4998624 0.4274099 0.3144071
## Cluster 4 0.6347040 0.5275921 0.4877004 0.4135018 0.3443827 0.2848267 0.2573574
## Cluster 5 0.9230259 0.9119784 0.9066379 0.8576595 0.6882284 0.5989440 0.5019914
                 10470
                           10471
                                                         10474
##
                                     10472
                                               10473
                                                                    10475
## Cluster 1 0.1795889 0.1682507 0.1673767 0.1628329 0.1560013 0.1513170 0.1640623
## Cluster 2 0.1860968 0.1659765 0.1545777 0.1495865 0.1560645 0.1572874 0.1555953
## Cluster 3 0.2564369 0.2204213 0.2113716 0.2038355 0.1917135 0.1925929 0.1905092
## Cluster 4 0.2417256 0.2518520 0.2317726 0.2317690 0.2472383 0.2489964 0.2540144
  Cluster 5 0.4339052 0.3742716 0.3273233 0.2823190 0.2750647 0.2760000 0.2610345
                           10478
                                     10479
                 10477
                                               10480
                                                         10481
                                                                    10482
                                                                              10483
## Cluster 1 0.1661180 0.1752626 0.2025955 0.2460000 0.3712865 0.5108727 0.5276127
## Cluster 2 0.1793255 0.2034135 0.2607009 0.3292317 0.4930587 0.5247801 0.5426540
## Cluster 3 0.1933376 0.1922652 0.2332014 0.2797901 0.3356695 0.3825929 0.4412411
## Cluster 4 0.2665090 0.3226787 0.3949531 0.5359061 0.7139170 0.7666859 0.7607256
## Cluster 5 0.2772112 0.2692026 0.2907759 0.3117845 0.3775776 0.3630345 0.4573276
##
                 10484
                           10485
                                     10486
                                               10487
                                                         10488
                                                                    10489
                                                                              10490
## Cluster 1 0.5618329 0.5979244 0.5897573 0.5224297 0.5341737 0.5427122 0.5401950
## Cluster 2 0.3929150 0.3454370 0.3389091 0.2905425 0.2545689 0.2858915 0.2685543
## Cluster 3 0.4472128 0.4652284 0.4724241 0.4865745 0.5213660 0.5377348 0.5355532
## Cluster 4 0.6466859 0.5666715 0.5069567 0.4270144 0.4344152 0.4777112 0.5146390
## Cluster 5 0.4594569 0.3909871 0.4184224 0.4202328 0.4290172 0.4842931 0.4714698
                 10491
                           10492
                                     10493
                                               10494
                                                          10495
                                                                    10496
## Cluster 1 0.5770411 0.6081034 0.6166247 0.5855769 0.4982878 0.5068435 0.5446393
## Cluster 2 0.2700264 0.2885718 0.2993490 0.2818065 0.2652258 0.2727507 0.3051818
## Cluster 3 0.5545787 0.5919262 0.6210411 0.6188028 0.6144043 0.5891433 0.6265702
## Cluster 4 0.5824007 0.4580181 0.4269422 0.4526462 0.4671119 0.4553718 0.5052960
## Cluster 5 0.4376121 0.4678362 0.5139698 0.4288578 0.4128707 0.4370172 0.4349526
                 10498
                           10499
                                     10500
                                               10501
                                                         10502
                                                                    10503
                                                                              10504
## Cluster 1 0.5849509 0.6570968 0.7499430 0.9632162 1.1682294 1.2485332 1.1680411
## Cluster 2 0.3042141 0.3096510 0.4065543 0.5319941 0.7513607 0.9490293 1.0387742
## Cluster 3 0.6917362 0.7254709 0.7994511 0.9019745 0.9623177 1.0359929 1.0198298
## Cluster 4 0.5315199 0.5706318 0.6794477 0.7517148 0.8152599 0.8912274 0.8572166
## Cluster 5 0.4414914 0.4617112 0.5528922 0.6061509 0.6655431 0.8273147 0.8869224
                 10505
                           10506
                                     10507
                                               10508
                                                         10509
                                                                    10510
                                                                              10511
## Cluster 1 1.1666963 1.0676393 1.0140928 0.9861631 0.9198952 0.8431897 0.7493210
## Cluster 2 1.1354809 1.0914985 1.0691232 1.0771232 1.1189853 1.0999795 0.9223871
## Cluster 3 1.0831078 1.0231929 0.9643376 0.9340979 0.9254227 0.9343376 0.8703603
## Cluster 4 0.8673935 0.8268917 0.8002780 0.7610794 0.6783718 0.6727870 0.6115884
## Cluster 5 0.8864957 0.8385776 0.8524138 0.8581207 0.9237457 0.8916810 0.8997716
                 10512
                           10513
                                     10514
                                               10515
                                                         10516
                                                                    10517
                                                                              10518
## Cluster 1 0.6485146 0.5330385 0.4202321 0.3376194 0.2775544 0.2097149 0.1870013
## Cluster 2 0.7742141 0.7103988 0.5405953 0.4049384 0.2980235 0.2669355 0.2112082
## Cluster 3 0.8222823 0.7225376 0.6171191 0.4853574 0.3873319 0.3161887 0.2556511
## Cluster 4 0.5413141 0.4830578 0.4253646 0.3609639 0.3217184 0.2887076 0.3054982
## Cluster 5 0.8209310 0.8699009 0.8224483 0.7350603 0.6418276 0.5634138 0.4500000
                           10520
                                                          10523
##
                 10519
                                     10521
                                               10522
                                                                    10524
                                                                              10525
## Cluster 1 0.1707215 0.1673289 0.1605318 0.1615531 0.1557719 0.1694151 0.1665398
## Cluster 2 0.1890029 0.1743343 0.1700587 0.1587977 0.1632405 0.1504692 0.1753431
## Cluster 3 0.2262482 0.2042014 0.1961716 0.1948142 0.1813362 0.1872355 0.2008624
## Cluster 4 0.2836245 0.2605307 0.2551552 0.2783213 0.2631841 0.2716534 0.2894296
## Cluster 5 0.3768534 0.3411379 0.3486638 0.2901853 0.2600216 0.2791940 0.3124483
##
                 10526
                           10527
                                     10528
                                               10529
                                                         10530
                                                                    10531
                                                                              10532
```

```
## Cluster 1 0.1810610 0.2009642 0.2493607 0.3789416 0.5103276 0.4987533 0.5635676
## Cluster 2 0.1850205 0.2476393 0.3407331 0.4310528 0.4320850 0.4739531 0.4029384
## Cluster 3 0.2081177 0.2474440 0.2695589 0.3396284 0.3866440 0.4315220 0.4503035
## Cluster 4 0.3676101 0.4514116 0.5837942 0.7183574 0.8236137 0.7326895 0.6587762
## Cluster 5 0.2862716 0.3335431 0.3180474 0.3561336 0.4244052 0.4656293 0.4679526
                 10533
                           10534
                                     10535
                                               10536
                                                          10537
                                                                    10538
##
                                                                              10539
## Cluster 1 0.5716578 0.6271936 0.6297971 0.6046048 0.5708820 0.5790318 0.6146446
## Cluster 2 0.3713284 0.3333138 0.3240762 0.3453372 0.3236716 0.2898006 0.2917214
## Cluster 3 0.4703376 0.5001943 0.5124681 0.5356170 0.5422652 0.6114922 0.6000369
## Cluster 4 0.5725921 0.4980108 0.4576895 0.4844729 0.4511733 0.4153718 0.4304043
  Cluster 5 0.4379871 0.4301164 0.4547888 0.4084440 0.3651121 0.3753233 0.3928750
                 10540
                           10541
                                     10542
                                               10543
                                                          10544
                                                                    10545
                                                                              10546
## Cluster 1 0.6197414 0.6221313 0.5277639 0.5042162 0.4956499 0.5476910 0.6073687
## Cluster 2 0.2875249 0.3695630 0.3131056 0.2973079 0.3049179 0.3393988 0.3601584
## Cluster 3 0.6565702 0.6557191 0.6367660 0.6036199 0.5882567 0.6385972 0.6794383
## Cluster 4 0.4841264 0.4677112 0.4448339 0.4488303 0.4056029 0.4871913 0.5292852
## Cluster 5 0.4235474 0.4292069 0.4224267 0.3576897 0.4179655 0.3746078 0.4040000
##
                 10547
                           10548
                                     10549
                                               10550
                                                          10551
                                                                    10552
                                                                              10553
## Cluster 1 0.6828647 0.8220743 0.9883846 1.1734191 1.1819615 1.1550676 1.0937440
## Cluster 2 0.3855894 0.4337918 0.4708299 0.6658182 0.9394633 1.0857214 1.1086569
## Cluster 3 0.7331262 0.8031078 0.8587957 0.9621957 1.0446865 1.0460227 1.0114440
## Cluster 4 0.6149061 0.7789892 0.8180939 0.8254152 0.7837726 0.7821841 0.7807076
## Cluster 5 0.4459871 0.4771293 0.5368534 0.5878147 0.7550345 0.7994871 0.8435388
                 10554
                           10555
                                     10556
                                               10557
                                                          10558
                                                                    10559
## Cluster 1 1.0416552 0.9425769 0.9314218 0.9013793 0.8656008 0.7834854 0.6761459
## Cluster 2 1.1460704 0.9978006 1.0003988 1.0392845 0.9801349 0.9219267 0.8506628
## Cluster 3 0.9870738 0.9588340 0.9308184 0.9554426 0.8881943 0.8538284 0.7881078
## Cluster 4 0.7447653 0.6572527 0.6631227 0.6278484 0.6151191 0.5680794 0.5153899
## Cluster 5 0.7690172 0.7859224 0.8256595 0.8372457 0.8279612 0.8614569 0.8054138
                 10561
                           10562
                                     10563
                                               10564
                                                          10565
                                                                    10566
                                                                              10567
## Cluster 1 0.5761751 0.4647599 0.3441989 0.2683050 0.2183979 0.1885371 0.1772507
## Cluster 2 0.7322463 0.5585865 0.3946334 0.2997889 0.2399179 0.1892053 0.1660323
## Cluster 3 0.7132000 0.6198355 0.5110652 0.4061504 0.3457574 0.2893248 0.2499348
## Cluster 4 0.4847545 0.4281805 0.3475487 0.2998231 0.2817256 0.2766859 0.2571336
## Cluster 5 0.8791422 0.8434612 0.6863966 0.5665948 0.5209267 0.4357543 0.3982069
                           10569
                                     10570
                                               10571
                 10568
                                                          10572
                                                                    10573
                                                                              10574
## Cluster 1 0.1648528 0.1557268 0.1548780 0.1526499 0.1599562 0.1667745 0.1742997
## Cluster 2 0.1702434 0.1541496 0.1552610 0.1533812 0.1530264 0.1632581 0.2125982
## Cluster 3 0.2287589 0.2079560 0.1967489 0.1946596 0.1944780 0.1995418 0.2114695
## Cluster 4 0.2382744 0.2355415 0.2583177 0.2491300 0.2489603 0.2655343 0.3467834
## Cluster 5 0.3582284 0.3394526 0.3127328 0.3013966 0.3112672 0.3137586 0.2834267
                 10575
                           10576
                                     10577
                                               10578
                                                          10579
                                                                    10580
                                                                              10581
## Cluster 1 0.1985225 0.2441485 0.3577825 0.4759151 0.5235053 0.5690438 0.5985279
## Cluster 2 0.2719853 0.3476569 0.4142933 0.4740674 0.4798768 0.3680850 0.3297185
## Cluster 3 0.2396638 0.2725773 0.3099376 0.3702156 0.3949688 0.4336383 0.4627816
## Cluster 4 0.4668303 0.5637256 0.6913935 0.7932563 0.7176354 0.6888592 0.5215957
## Cluster 5 0.3166164 0.3345776 0.3498922 0.4090000 0.4364095 0.4814914 0.4716121
                           10583
                                     10584
                                               10585
                                                          10586
##
                 10582
                                                                    10587
                                                                              10588
## Cluster 1 0.6782759 0.6282573 0.5717533 0.5618249 0.5416340 0.5597241 0.5933899
## Cluster 2 0.3557214 0.3452610 0.3340938 0.3421290 0.3402023 0.3014135 0.3519736
## Cluster 3 0.4881021 0.5010567 0.5440184 0.6045759 0.6332312 0.6514596 0.6548482
## Cluster 4 0.5282708 0.4978809 0.4644513 0.4777653 0.4840758 0.5219639 0.4986065
## Cluster 5 0.4164655 0.4232414 0.3888362 0.3851164 0.3931552 0.4024483 0.4835345
##
                 10589
                           10590
                                     10591
                                               10592
                                                          10593
                                                                    10594
                                                                              10595
```

```
## Cluster 1 0.6155928 0.5292454 0.5579058 0.5373634 0.5511101 0.6134854 0.6638064
## Cluster 2 0.3788328 0.3358387 0.3266246 0.3280880 0.3311730 0.3552053 0.4205601
## Cluster 3 0.6472085 0.6367248 0.6535191 0.6404894 0.6376567 0.6399674 0.6990681
## Cluster 4 0.4966029 0.4729603 0.4481986 0.4384801 0.4762996 0.4937834 0.6036643
## Cluster 5 0.4870819 0.4721121 0.4282500 0.4144828 0.4051853 0.4561681 0.4921164
                 10596
                           10597
                                     10598
                                               10599
                                                          10600
                                                                    10601
##
## Cluster 1 0.7951552 0.9264682 1.0649098 1.1714390 1.1606167 1.0961167 1.0697732
## Cluster 2 0.4358475 0.5764223 0.7290850 0.9041994 1.0664692 1.1199091 1.1284106
## Cluster 3 0.7536383 0.8005433 0.8783674 0.9686113 0.9856426 0.9768043 0.9587291
## Cluster 4 0.6457798 0.7069747 0.7710578 0.8182780 0.8218159 0.8484368 0.7874874
  Cluster 5 0.5364914 0.5424828 0.5677888 0.7161638 0.8838836 0.9109914 0.8950431
                                                          10607
                                     10605
                 10603
                           10604
                                               10606
                                                                    10608
                                                                              10609
## Cluster 1 0.9527772 0.9098886 0.8981313 0.8274589 0.7657281 0.6805265 0.5907228
## Cluster 2 1.0103842 0.9939267 1.0050264 0.9304839 0.8149296 0.7365367 0.6872199
## Cluster 3 0.8862979 0.8787348 0.9304809 0.9053418 0.8325858 0.8187007 0.7438071
## Cluster 4 0.7224838 0.7086245 0.7220578 0.6702708 0.6219314 0.5904982 0.5277762
## Cluster 5 0.8023621 0.7935172 0.8671293 0.8357802 0.7994612 0.8460560 0.8539741
##
                 10610
                           10611
                                     10612
                                               10613
                                                          10614
                                                                    10615
                                                                              10616
## Cluster 1 0.4913130 0.3935066 0.2937546 0.2542798 0.2097732 0.1819920 0.1723289
## Cluster 2 0.5788592 0.4608152 0.3442610 0.2911613 0.2257771 0.1924780 0.1821261
## Cluster 3 0.6788894 0.5764525 0.4656539 0.4079305 0.3257504 0.2871858 0.2622028
## Cluster 4 0.4521805 0.4047581 0.3643177 0.3238087 0.2919783 0.2837762 0.2870144
## Cluster 5 0.8788922 0.7851379 0.6445000 0.5505690 0.5084095 0.4690431 0.4200086
                 10617
                           10618
                                     10619
                                               10620
                                                          10621
                                                                    10622
## Cluster 1 0.1656366 0.1647056 0.1637347 0.1646034 0.1698369 0.1758926 0.1835186
## Cluster 2 0.1640587 0.1571290 0.1566364 0.1524927 0.1593724 0.1627449 0.1893460
## Cluster 3 0.2311589 0.2240652 0.2128468 0.2096553 0.2147801 0.2188156 0.2311617
## Cluster 4 0.2675668 0.2618231 0.2667040 0.2728123 0.2789856 0.3400866 0.3989819
## Cluster 5 0.4032716 0.3468491 0.3027672 0.3226207 0.3220043 0.2862026 0.3277284
##
                 10624
                           10625
                                     10626
                                               10627
                                                          10628
                                                                    10629
                                                                              10630
## Cluster 1 0.2026180 0.2536910 0.3265597 0.4027069 0.4795146 0.5757984 0.6602918
## Cluster 2 0.2244223 0.2473578 0.2804223 0.3988094 0.4171466 0.4712727 0.5319150
## Cluster 3 0.2507305 0.2626851 0.2966695 0.3438454 0.3955929 0.4780014 0.5613433
## Cluster 4 0.3985596 0.5130542 0.5853718 0.6291516 0.6346029 0.6755379 0.6614007
## Cluster 5 0.3263664 0.3186509 0.3342026 0.3785474 0.3954310 0.4906552 0.4687026
                                               10634
                           10632
                                     10633
                                                          10635
                 10631
                                                                    10636
                                                                              10637
## Cluster 1 0.7362175 0.7795995 0.6945729 0.7441154 0.7525597 0.7900902 0.7668554
## Cluster 2 0.5229208 0.5375601 0.5052229 0.5013988 0.5258387 0.5033930 0.5606921
## Cluster 3 0.5977631 0.6548567 0.6826241 0.7715730 0.7893376 0.7614809 0.7758440
## Cluster 4 0.6452166 0.6034513 0.5607545 0.6003574 0.6070144 0.7126209 0.5753538
## Cluster 5 0.4922155 0.5505129 0.5653664 0.5277543 0.6195603 0.5262759 0.6031034
                 10638
                           10639
                                     10640
                                               10641
                                                          10642
                                                                    10643
                                                                              10644
## Cluster 1 0.7426286 0.6813183 0.7176883 0.6709058 0.6971923 0.6872653 0.8013528
## Cluster 2 0.5195161 0.5082698 0.5613519 0.5554897 0.5562053 0.5699150 0.6143666
## Cluster 3 0.7759532 0.7732468 0.7597858 0.7705887 0.7848965 0.8042894 0.8774496
## Cluster 4 0.5633321 0.5050181 0.5696209 0.5774296 0.6355307 0.6666679 0.6942816
## Cluster 5 0.5678017 0.5304353 0.5747069 0.5703793 0.5518534 0.5768276 0.5467888
                 10645
                           10646
                                     10647
##
                                               10648
                                                          10649
                                                                    10650
                                                                              10651
## Cluster 1 0.9472573 1.1060743 1.2116592 1.1896645 1.1202294 1.0536220 0.9797918
## Cluster 2 0.6612991 0.8958446 1.0909179 1.1645836 1.2007713 1.0701525 1.0536686
## Cluster 3 0.8654539 0.9529589 1.0761333 1.1288071 1.0686496 0.9987631 0.9998454
## Cluster 4 0.8441733 0.8554477 0.9283321 0.9424657 0.8778953 0.7905451 0.7762996
## Cluster 5 0.6080733 0.6501250 0.7888578 0.8850129 0.9358578 0.8482672 0.8464353
##
                 10652
                           10653
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                                               10655
                                                          10656
                                                                    10657
                                                                              10658
```

```
## Cluster 1 0.9322175 0.8482891 0.7916897 0.6896830 0.6522427 0.5642639 0.4859324
## Cluster 2 1.0274340 0.9678798 0.8893196 0.8523988 0.7333548 0.6718416 0.5563959
## Cluster 3 0.9713887 0.9179092 0.8917135 0.8688667 0.8004326 0.7490284 0.6686738
## Cluster 4 0.7333430 0.6929097 0.6324188 0.6075415 0.6082347 0.5115523 0.4639242
## Cluster 5 0.8708103 0.8912371 0.8733147 0.8300000 0.8409526 0.8346724 0.7908664
                 10659
                           10660
                                     10661
                                               10662
                                                         10663
                                                                    10664
##
                                                                              10665
## Cluster 1 0.3779509 0.3221485 0.2717546 0.2387374 0.2059668 0.1899443 0.1787997
## Cluster 2 0.4781994 0.4077595 0.3163460 0.2580323 0.2232023 0.1905513 0.1775748
## Cluster 3 0.5748709 0.4905121 0.4189617 0.3531163 0.3210780 0.2776227 0.2605461
## Cluster 4 0.4004224 0.3698087 0.3231949 0.2966751 0.3023574 0.2967978 0.2933357
  Cluster 5 0.7636293 0.6681509 0.6092241 0.5209009 0.4253578 0.4443966 0.4262328
                                     10668
                 10666
                           10667
                                               10669
                                                         10670
                                                                    10671
                                                                              10672
## Cluster 1 0.1713117 0.1640889 0.1611645 0.1643011 0.1698581 0.1737865 0.1831790
## Cluster 2 0.1736979 0.1797507 0.1598270 0.1630499 0.1664370 0.1846188 0.2180850
## Cluster 3 0.2401461 0.2157050 0.2112199 0.2134908 0.2114965 0.2186312 0.2271702
## Cluster 4 0.2703177 0.2680181 0.2752455 0.2903538 0.3420036 0.3809711 0.3992744
## Cluster 5 0.3585474 0.3017198 0.3254138 0.3438879 0.2752414 0.3267198 0.3078362
##
                 10673
                           10674
                                     10675
                                               10676
                                                         10677
                                                                    10678
                                                                              10679
## Cluster 1 0.2126645 0.2540981 0.3348966 0.4560000 0.5753806 0.6544297 0.7389218
## Cluster 2 0.2346598 0.2748270 0.3221408 0.3424956 0.4333988 0.5016129 0.5515220
## Cluster 3 0.2466780 0.2595504 0.3141915 0.3497787 0.4384908 0.5368000 0.6154184
## Cluster 4 0.4516354 0.5200217 0.5511877 0.5642238 0.6114332 0.6140217 0.6385596
## Cluster 5 0.3052974 0.2916552 0.3073793 0.3358362 0.3944267 0.4654052 0.5517328
                 10680
                           10681
                                     10682
                                               10683
                                                         10684
                                                                    10685
## Cluster 1 0.8255703 0.8714390 0.8864019 0.9022838 0.9572056 0.9561950 0.8777984
## Cluster 2 0.5693109 0.6387889 0.6918094 0.6373754 0.6171114 0.6722933 0.5951730
## Cluster 3 0.7351560 0.8219645 0.8249277 0.9306979 0.9553745 0.9667277 0.9353759
## Cluster 4 0.6621191 0.6931191 0.7582130 0.8119603 0.7480830 0.7164296 0.6939495
## Cluster 5 0.5993147 0.6213405 0.5660603 0.6151681 0.6310603 0.5983448 0.5756422
                 10687
                           10688
                                     10689
                                               10690
                                                         10691
                                                                    10692
                                                                              10693
## Cluster 1 0.8204602 0.7759801 0.7360756 0.7532122 0.7921353 0.7886857 0.9195623
## Cluster 2 0.6045044 0.5477742 0.5458446 0.5515191 0.5343900 0.5905865 0.7185396
## Cluster 3 0.8967773 0.8621745 0.7962539 0.8611872 0.7729759 0.7890454 0.8274326
## Cluster 4 0.6531733 0.6102310 0.6277978 0.6980505 0.7531986 0.8237509 0.7925704
## Cluster 5 0.5983190 0.5415517 0.5287716 0.5662284 0.5543879 0.5603922 0.5590216
                           10695
                                     10696
                                               10697
                 10694
                                                         10698
                                                                    10699
                                                                              10700
## Cluster 1 1.0312029 1.1023289 1.1377599 1.1288515 1.0757003 0.9928223 0.9478143
## Cluster 2 0.8633548 1.0654370 1.1577625 1.1060587 1.0843900 1.0243548 1.0407067
## Cluster 3 0.8972993 0.9600936 1.0008851 1.0146865 1.0400298 1.0159418 1.0076638
## Cluster 4 0.9083394 0.8943827 0.9109134 0.9015307 0.8317365 0.7873141 0.7964693
## Cluster 5 0.6031034 0.7099957 0.8618147 0.8291293 0.8379871 0.8649569 0.8866983
                 10701
                           10702
                                     10703
                                               10704
                                                         10705
                                                                    10706
                                                                              10707
## Cluster 1 0.8808992 0.8074483 0.7134828 0.5896923 0.4899390 0.4078501 0.2995928
## Cluster 2 1.0240938 0.9566422 0.9380557 0.8066481 0.6059443 0.4747243 0.3570792
## Cluster 3 0.9891362 0.8732965 0.8550738 0.7609702 0.7180000 0.5982738 0.4818085
## Cluster 4 0.7906643 0.7466643 0.6809567 0.5903574 0.5361083 0.4595596 0.3756426
## Cluster 5 0.8235733 0.8534483 0.8427716 0.7843276 0.8157888 0.7768017 0.6883017
                 10708
                           10709
                                     10710
                                                          10712
##
                                               10711
                                                                    10713
                                                                              10714
## Cluster 1 0.2379324 0.1984098 0.1813355 0.1618130 0.1562162 0.1524708 0.1527997
## Cluster 2 0.2860000 0.2283548 0.1917830 0.1684956 0.1603314 0.1520850 0.1512903
## Cluster 3 0.3936397 0.3200213 0.2665660 0.2343220 0.2321050 0.2166355 0.2060213
## Cluster 4 0.3238700 0.2875343 0.2654260 0.2582130 0.2387112 0.2424765 0.2515668
## Cluster 5 0.6215862 0.5304569 0.4803147 0.4162112 0.3909181 0.3659009 0.3023190
##
                 10715
                           10716
                                     10717
                                               10718
                                                         10719
                                                                    10720
```

```
## Cluster 1 0.1516671 0.1637958 0.1642692 0.1681459 0.2057971 0.2609390 0.4265279
## Cluster 2 0.1526100 0.1534194 0.1606569 0.1985630 0.2616745 0.3281642 0.4390176
## Cluster 3 0.2027787 0.1991574 0.2082638 0.2167418 0.2464128 0.2902426 0.3753064
## Cluster 4 0.2618123 0.2601697 0.2885379 0.3609170 0.4511733 0.6032419 0.8249422
## Cluster 5 0.2870603 0.2786810 0.2954095 0.2795474 0.3080216 0.3415474 0.4067716
                 10722
                           10723
                                     10724
                                               10725
                                                          10726
                                                                    10727
##
## Cluster 1 0.5907653 0.6145544 0.5818714 0.5886485 0.5990252 0.5641512 0.5482613
## Cluster 2 0.4848270 0.4866686 0.3501290 0.2937449 0.3085484 0.2797713 0.3092023
## Cluster 3 0.4569929 0.4838255 0.4894156 0.5051348 0.4827631 0.4960326 0.5196780
## Cluster 4 0.8900361 0.7610866 0.5760072 0.5301227 0.5388195 0.5049061 0.4567617
  Cluster 5 0.4625819 0.5239353 0.4793578 0.4473276 0.4048405 0.3371853 0.4076810
                                                          10733
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                                     10731
                                               10732
                                                                    10734
                                                                              10735
## Cluster 1 0.4943249 0.5117082 0.5544032 0.5785119 0.6089138 0.5450146 0.5287984
## Cluster 2 0.2932493 0.2561584 0.2813255 0.2965220 0.3597126 0.3020557 0.2912082
## Cluster 3 0.5272028 0.5550099 0.5647603 0.5994553 0.6252624 0.5941163 0.6232851
## Cluster 4 0.4809964 0.4340866 0.4553357 0.4860578 0.4329675 0.4207653 0.4131408
## Cluster 5 0.4341379 0.4818491 0.4734397 0.3929569 0.4266853 0.4202931 0.3893836
##
                 10736
                           10737
                                     10738
                                               10739
                                                          10740
                                                                    10741
                                                                              10742
## Cluster 1 0.5462122 0.5661605 0.6195915 0.6890756 0.7838435 0.9913355 1.1685584
## Cluster 2 0.3130880 0.3438299 0.3643607 0.4438651 0.4573959 0.5886510 0.7765748
## Cluster 3 0.6278525 0.6711418 0.7071021 0.7583504 0.8531433 0.9302071 0.9574255
## Cluster 4 0.4088520 0.4955379 0.5782022 0.6842347 0.7769783 0.8323899 0.8732527
## Cluster 5 0.4214138 0.4015431 0.3742241 0.4374655 0.4571293 0.5163879 0.6412112
                                     10745
                                               10746
                 10743
                           10744
                                                          10747
                                                                    10748
## Cluster 1 1.2345199 1.1647427 1.1495000 1.1137878 1.0518820 0.9860225 0.9235981
## Cluster 2 1.0822551 1.1978416 1.2535543 1.1783255 1.1600029 1.0683548 1.0780440
## Cluster 3 1.0124709 1.0503333 1.1052411 1.0315816 0.9590057 0.9590369 0.9499305
## Cluster 4 0.9309206 0.9687653 0.8924188 0.8509314 0.7742960 0.7907798 0.8015018
## Cluster 5 0.7519052 0.8026422 0.8843707 0.9074310 0.8992328 0.8510086 0.8868707
##
                 10750
                           10751
                                     10752
                                               10753
                                                          10754
                                                                    10755
                                                                              10756
## Cluster 1 0.8594390 0.7656379 0.6127374 0.5093011 0.3807321 0.2831883 0.2222029
## Cluster 2 1.0387537 0.9632141 0.8003109 0.6441965 0.4683754 0.3405748 0.2639267
## Cluster 3 0.9258596 0.8743050 0.7793546 0.7134426 0.6098383 0.4547915 0.3835745
## Cluster 4 0.7358087 0.6229206 0.5453538 0.4816137 0.3858484 0.3368917 0.3017509
## Cluster 5 0.8371724 0.8394181 0.8133664 0.8737931 0.8073060 0.7237759 0.5835776
                           10758
                                     10759
                 10757
                                               10760
                                                          10761
                                                                    10762
                                                                              10763
## Cluster 1 0.1911233 0.1769310 0.1656088 0.1557082 0.1543462 0.1526353 0.1485703
## Cluster 2 0.2083695 0.1804633 0.1702199 0.1653343 0.1549941 0.1590293 0.1540528
## Cluster 3 0.3064738 0.2640738 0.2294496 0.2168596 0.2067277 0.1951901 0.1925532
## Cluster 4 0.2702202 0.2758159 0.2594079 0.2570758 0.2535993 0.2693357 0.2647942
## Cluster 5 0.5019267 0.4605517 0.3651724 0.3454009 0.3570345 0.3129397 0.2899310
                 10764
                           10765
                                     10766
                                               10767
                                                          10768
                                                                    10769
                                                                              10770
## Cluster 1 0.1578249 0.1617745 0.1791684 0.2197241 0.2819416 0.4269536 0.6143833
## Cluster 2 0.1565630 0.1684692 0.1961056 0.2882463 0.3865073 0.4966540 0.5620674
## Cluster 3 0.1952043 0.2040440 0.2147078 0.2478099 0.2879560 0.3742823 0.4624610
## Cluster 4 0.2827329 0.2903105 0.3989567 0.4837545 0.6410686 0.7946282 0.9188231
## Cluster 5 0.2974612 0.3111034 0.2728319 0.3288534 0.3328405 0.3887155 0.4629440
                           10772
                                                          10775
##
                 10771
                                     10773
                                               10774
                                                                    10776
                                                                              10777
## Cluster 1 0.6302798 0.5724297 0.6071313 0.5885637 0.5883753 0.5458607 0.4810676
## Cluster 2 0.4852991 0.3786540 0.3205249 0.2895806 0.2518006 0.2713548 0.2639531
## Cluster 3 0.4954511 0.4865277 0.4718865 0.4541149 0.4362170 0.4485858 0.4999035
## Cluster 4 0.7587762 0.6199639 0.4953357 0.4493827 0.4608736 0.4211372 0.4425126
## Cluster 5 0.4620000 0.5031810 0.4184914 0.4080819 0.4593103 0.4303147 0.4566983
##
                 10778
                           10779
                                     10780
                                               10781
                                                          10782
                                                                    10783
                                                                              10784
```

```
## Cluster 1 0.4995796 0.4859589 0.5805517 0.6004191 0.5827944 0.5640332 0.5926923
## Cluster 2 0.2483284 0.2712199 0.3006334 0.3307595 0.3541760 0.3312845 0.3192815
## Cluster 3 0.5362879 0.5748596 0.5986823 0.6110028 0.6009376 0.6082426 0.6406752
## Cluster 4 0.4190758 0.4702383 0.4326787 0.5225632 0.4340072 0.4585487 0.4854549
## Cluster 5 0.4049267 0.4372931 0.4129353 0.4551121 0.4476422 0.4577241 0.4450819
                 10785
                           10786
                                               10788
                                                         10789
                                                                    10790
##
                                     10787
                                                                              10791
## Cluster 1 0.6798130 0.6868939 0.8134708 0.9680517 1.1349111 1.2342347 1.2038249
## Cluster 2 0.3890059 0.4108974 0.4452141 0.5098915 0.6294194 0.9053930 0.9894868
## Cluster 3 0.7123291 0.7869078 0.8571645 0.9568014 0.9718837 1.0214596 1.0764241
## Cluster 4 0.5724946 0.5968556 0.6992996 0.7862744 0.8142202 0.8733899 0.8860686
  Cluster 5 0.4168750 0.4733750 0.5148966 0.5026164 0.6053190 0.6408103 0.7968621
                 10792
                           10793
                                     10794
                                               10795
                                                         10796
                                                                    10797
                                                                              10798
## Cluster 1 1.1515531 1.1418634 1.0407984 1.0563276 0.9620371 0.9233873 0.8229788
## Cluster 2 1.0430499 1.1768622 1.2200880 1.2016569 1.1846246 1.0369853 0.9889765
## Cluster 3 1.0526426 1.0602525 1.0218638 1.0452426 1.0598738 1.0356979 0.9362950
## Cluster 4 0.8556029 0.8524910 0.8083213 0.8575776 0.7494043 0.7416606 0.6835704
## Cluster 5 0.8001379 0.8399267 0.8444698 0.8564310 0.9146595 0.9470431 0.9403922
##
                 10799
                           10800
                                     10801
                                               10802
                                                         10803
                                                                    10804
                                                                              10805
## Cluster 1 0.7466804 0.6028992 0.5045875 0.3941499 0.2847546 0.2320729 0.1899602
## Cluster 2 0.8583548 0.7806217 0.6615249 0.4561554 0.3372933 0.2660557 0.1977155
## Cluster 3 0.8753248 0.7906837 0.6995149 0.5804652 0.5001163 0.3919972 0.3097716
## Cluster 4 0.5994693 0.5334729 0.5165235 0.4116245 0.3375993 0.2927653 0.2483213
## Cluster 5 0.8828448 0.8127328 0.8327198 0.7626853 0.6932500 0.5650474 0.4589612
                 10806
                           10807
                                     10808
                                               10809
                                                         10810
                                                                    10811
## Cluster 1 0.1664231 0.1661233 0.1619642 0.1563780 0.1552546 0.1486684 0.1615889
## Cluster 2 0.1816891 0.1729589 0.1632991 0.1523724 0.1490293 0.1486804 0.1504487
## Cluster 3 0.2690085 0.2481532 0.2279674 0.2216582 0.2180284 0.2109234 0.2128113
## Cluster 4 0.2416859 0.2341372 0.2200469 0.2259170 0.2411480 0.2519314 0.2713357
## Cluster 5 0.4215819 0.3876897 0.3391466 0.3329914 0.2829181 0.2542328 0.2813405
##
                 10813
                           10814
                                     10815
                                               10816
                                                         10817
                                                                    10818
                                                                              10819
## Cluster 1 0.1642626 0.1696273 0.1999615 0.2725305 0.4088170 0.5608528 0.6064138
## Cluster 2 0.1670704 0.1938798 0.2376217 0.3359912 0.4891437 0.5590088 0.4773138
## Cluster 3 0.2125830 0.2304426 0.2503787 0.3231489 0.4095716 0.4606255 0.4885730
## Cluster 4 0.2631516 0.3682347 0.4602491 0.5987256 0.7666787 0.8725307 0.7843466
## Cluster 5 0.3067069 0.2718448 0.3317845 0.3291681 0.3820517 0.4862974 0.4961207
                           10821
                                     10822
                                               10823
                                                         10824
                                                                    10825
                 10820
                                                                              10826
## Cluster 1 0.6078714 0.5798634 0.5577851 0.5205942 0.5075186 0.5102334 0.4918422
## Cluster 2 0.3512199 0.3321701 0.3075191 0.2690264 0.2416540 0.2216276 0.2383372
## Cluster 3 0.4743844 0.4952879 0.5028908 0.5007915 0.5158326 0.5172539 0.5153801
## Cluster 4 0.6543646 0.5214874 0.4767004 0.4301155 0.3850542 0.3948159 0.4284549
## Cluster 5 0.4296422 0.4116638 0.3804698 0.4235819 0.3645733 0.3348405 0.3958707
                 10827
                           10828
                                     10829
                                               10830
                                                         10831
                                                                    10832
                                                                              10833
## Cluster 1 0.5597082 0.5297334 0.5660000 0.5696472 0.5440411 0.5308249 0.5718103
## Cluster 2 0.2545249 0.2608915 0.2965073 0.3027566 0.3235894 0.3158094 0.3420381
## Cluster 3 0.5743050 0.6037844 0.6049163 0.5968738 0.6188652 0.6108128 0.6490993
## Cluster 4 0.4383105 0.4617942 0.4265162 0.4344549 0.4268448 0.4542635 0.4793321
## Cluster 5 0.3941724 0.4107802 0.4762414 0.4256078 0.3754353 0.3953836 0.4014957
                 10834
                           10835
                                     10836
                                                          10838
##
                                               10837
                                                                    10839
                                                                              10840
## Cluster 1 0.6071326 0.6888687 0.8108448 1.0562719 1.2288369 1.1995292 1.1485332
## Cluster 2 0.3441408 0.4041965 0.4577947 0.6271378 0.7324839 0.9081173 1.0599912
## Cluster 3 0.7353929 0.8233929 0.8640766 0.8904184 0.9841787 1.0384993 1.0210199
## Cluster 4 0.5061047 0.6626895 0.7317040 0.8121986 0.8619386 0.8644079 0.8515921
## Cluster 5 0.4243664 0.4931595 0.5096207 0.5899181 0.6298491 0.6994612 0.8365647
##
                 10841
                           10842
                                     10843
                                               10844
                                                         10845
                                                                    10846
                                                                              10847
```

```
## Cluster 1 1.1384496 1.0686857 1.0555424 0.9896777 0.9187042 0.8607692 0.7403077
## Cluster 2 1.1198387 1.0482610 1.0451349 1.0785103 1.0428387 0.9410235 0.8871144
## Cluster 3 1.0321007 1.0318794 1.0200950 0.9927560 0.9753248 0.9612298 0.9188723
## Cluster 4 0.8534729 0.8562202 0.8122527 0.8114043 0.7745704 0.7251372 0.6498159
## Cluster 5 0.8943276 0.8743534 0.8757026 0.8609828 0.9113190 0.8585172 0.8519526
                 10848
                           10849
                                     10850
                                               10851
                                                          10852
                                                                    10853
##
                                                                              10854
## Cluster 1 0.6292891 0.5300849 0.4072427 0.2947719 0.2416300 0.2087467 0.1795438
## Cluster 2 0.7759765 0.6566481 0.4937302 0.3497625 0.2674575 0.2307830 0.1918182
## Cluster 3 0.8075589 0.6848738 0.5496922 0.4663447 0.3673943 0.2991121 0.2594582
## Cluster 4 0.5915162 0.5598087 0.4323502 0.3448267 0.2808087 0.2741805 0.2627220
  Cluster 5 0.8649095 0.8465517 0.7893319 0.7013491 0.5846897 0.4930000 0.4378707
                           10856
                                     10857
                                               10858
                 10855
                                                          10859
                                                                    10860
                                                                              10861
## Cluster 1 0.1651631 0.1625093 0.1583753 0.1533899 0.1564523 0.1544920 0.1702228
## Cluster 2 0.1849531 0.1650117 0.1533343 0.1581554 0.1507067 0.1525630 0.1592258
## Cluster 3 0.2298468 0.2173617 0.2038752 0.1972170 0.1964355 0.1940113 0.2093177
## Cluster 4 0.2645812 0.2253827 0.2284007 0.2491949 0.2469675 0.2750469 0.2840614
## Cluster 5 0.3692155 0.3274655 0.3404871 0.3086681 0.2747931 0.3041724 0.3262716
##
                 10862
                           10863
                                     10864
                                               10865
                                                          10866
                                                                    10867
                                                                              10868
## Cluster 1 0.1699987 0.2025809 0.2786048 0.4291088 0.5646777 0.5915796 0.5663793
## Cluster 2 0.2093460 0.2441789 0.3885308 0.4973314 0.5709179 0.4714194 0.3775601
## Cluster 3 0.2184284 0.2600071 0.2835234 0.3871617 0.4329163 0.4598539 0.4895504
## Cluster 4 0.3663285 0.4558592 0.6680181 0.8533069 0.8959747 0.7900686 0.6590036
## Cluster 5 0.2627888 0.3284483 0.3690345 0.4021207 0.4190345 0.4977500 0.4165776
                 10869
                           10870
                                     10871
                                               10872
                                                          10873
                                                                    10874
## Cluster 1 0.5275438 0.5764244 0.5385040 0.5183674 0.4812865 0.4585544 0.4997533
## Cluster 2 0.2828065 0.2525073 0.2569531 0.2653842 0.2415894 0.2101789 0.2573783
## Cluster 3 0.4956213 0.4819291 0.5111121 0.4928397 0.4497489 0.4878652 0.5138496
## Cluster 4 0.5024404 0.4661733 0.4721480 0.4287401 0.4408339 0.4214801 0.4191480
## Cluster 5 0.3752629 0.3529052 0.3558621 0.3876466 0.3709138 0.3729052 0.4633750
                 10876
                           10877
                                     10878
                                               10879
                                                          10880
                                                                    10881
                                                                              10882
## Cluster 1 0.5461989 0.5748674 0.5240239 0.5041419 0.5092467 0.5706260 0.5828820
## Cluster 2 0.2704692 0.2743636 0.3073490 0.2940850 0.3230587 0.3087361 0.3346804
## Cluster 3 0.5507433 0.5914851 0.5876624 0.5606525 0.5656482 0.6524752 0.7069135
## Cluster 4 0.4405162 0.4736245 0.4718014 0.4670000 0.4356895 0.4886570 0.5345126
## Cluster 5 0.3958793 0.3737328 0.3818147 0.3606164 0.3698621 0.3799957 0.4055345
                 10883
                           10884
                                     10885
                                               10886
                                                          10887
                                                                    10888
                                                                              10889
## Cluster 1 0.7069231 0.7928873 0.9457812 1.1170159 1.1797825 1.1515769 1.1411897
## Cluster 2 0.3474399 0.4097771 0.4378856 0.6416862 0.8725660 0.9853959 1.1163900
## Cluster 3 0.7639092 0.8080695 0.8682113 0.8992340 0.9717773 0.9982085 1.0295901
## Cluster 4 0.6233899 0.6904260 0.7165993 0.7707509 0.8236173 0.8330939 0.7665307
## Cluster 5 0.3965690 0.4534914 0.5099698 0.6124353 0.6775819 0.8152716 0.8245474
                 10890
                           10891
                                     10892
                                               10893
                                                          10894
                                                                    10895
                                                                              10896
## Cluster 1 1.0785093 1.0479642 1.0079005 0.9300809 0.8269960 0.7702865 0.6450040
## Cluster 2 1.1213050 1.0834780 1.0539208 1.0487185 0.9986452 0.8970821 0.8006217
## Cluster 3 1.0574993 1.0272908 1.0217064 0.9443447 0.9385163 0.9122695 0.8177816
## Cluster 4 0.7231516 0.7631191 0.7077653 0.7405921 0.7249350 0.6281408 0.5584404
## Cluster 5 0.8262328 0.8251810 0.8312500 0.8774698 0.9078362 0.9464741 0.9012112
                           10898
                                     10899
                                                          10901
                                                                    10902
##
                 10897
                                               10900
                                                                              10903
## Cluster 1 0.5204244 0.4029019 0.2925610 0.2298064 0.1969655 0.1743355 0.1691101
## Cluster 2 0.6116452 0.4800469 0.3319150 0.2495718 0.2149003 0.1894545 0.1713842
## Cluster 3 0.7662582 0.6464511 0.5335092 0.4103262 0.3164355 0.2720014 0.2443688
## Cluster 4 0.5072996 0.4017329 0.3768845 0.3119097 0.2857545 0.2807978 0.2579134
## Cluster 5 0.9529698 0.8551379 0.7265431 0.5972759 0.4983664 0.4482241 0.3594569
##
                 10904
                           10905
                                     10906
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                                                                    10909
                                                                              10910
```

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## Cluster 1 0.1557626 0.1623820 0.1565902 0.1534403 0.1577427 0.1653992 0.1721273
## Cluster 2 0.1577654 0.1487331 0.1515455 0.1569883 0.1541994 0.1608035 0.2006452
## Cluster 3 0.2198085 0.2133631 0.2002681 0.1906128 0.1934936 0.2031220 0.2137929
## Cluster 4 0.2437292 0.2301119 0.2449170 0.2439386 0.2644549 0.2821805 0.3605668
## Cluster 5 0.3348190 0.3329310 0.2990948 0.3074224 0.3123534 0.3336552 0.2900000
                 10911
                           10912
                                     10913
                                               10914
                                                         10915
                                                                    10916
##
## Cluster 1 0.1989284 0.2702056 0.4341485 0.5693130 0.5916326 0.5741989 0.5797772
## Cluster 2 0.2482434 0.3625103 0.4673109 0.5387009 0.5188504 0.3958475 0.3132199
## Cluster 3 0.2457716 0.2954113 0.3916170 0.4522468 0.4787064 0.4960723 0.4694326
## Cluster 4 0.4420722 0.6094657 0.7665632 0.7916643 0.7838845 0.6217509 0.5459495
  Cluster 5 0.3303836 0.3668664 0.4527543 0.4768664 0.5073621 0.4890560 0.4297241
                           10919
                                     10920
                                                          10922
                 10918
                                               10921
                                                                    10923
                                                                              10924
## Cluster 1 0.5953912 0.5400915 0.5226048 0.4910358 0.4889973 0.5067931 0.5250371
## Cluster 2 0.2799032 0.2998651 0.2980000 0.2685513 0.2515953 0.2747595 0.3185455
## Cluster 3 0.4571518 0.5036539 0.5133475 0.5397333 0.5605135 0.5905546 0.5615078
## Cluster 4 0.5215921 0.4246318 0.4201444 0.4245668 0.4094549 0.3691877 0.4344729
## Cluster 5 0.4821897 0.4538405 0.4371724 0.3570388 0.3427931 0.3560431 0.3836336
##
                 10925
                           10926
                                     10927
                                               10928
                                                         10929
                                                                    10930
                                                                              10931
## Cluster 1 0.5549019 0.5104801 0.4946764 0.5331459 0.5581048 0.5902573 0.6252281
## Cluster 2 0.3064487 0.2919296 0.3075455 0.3029091 0.3103724 0.3681056 0.3951114
## Cluster 3 0.5975461 0.5917163 0.5798426 0.5916454 0.6421319 0.7237135 0.7703702
## Cluster 4 0.4487545 0.4756859 0.4478195 0.4700794 0.5120866 0.5584621 0.6349603
## Cluster 5 0.4327112 0.3536638 0.3561293 0.3921681 0.4052845 0.4790302 0.4653147
                 10932
                           10933
                                     10934
                                               10935
                                                         10936
                                                                    10937
## Cluster 1 0.7439602 0.8920796 1.0366273 1.1037719 1.0566499 1.0782440 1.0188130
## Cluster 2 0.4523959 0.4996217 0.6765161 0.8793578 1.0088416 1.0621672 1.0415279
## Cluster 3 0.8128270 0.8322411 0.9022865 0.9562113 0.9972638 1.0207957 1.0079830
## Cluster 4 0.7043357 0.7358556 0.7825090 0.8117978 0.7844549 0.8022274 0.7621841
## Cluster 5 0.4578276 0.5340819 0.5700991 0.7435647 0.8718750 0.8174267 0.8355819
##
                 10939
                           10940
                                     10941
                                               10942
                                                         10943
                                                                    10944
                                                                              10945
## Cluster 1 1.0339045 0.9109204 0.8849960 0.7891658 0.7371101 0.6547931 0.5518223
## Cluster 2 1.0603196 0.9786979 0.9897507 0.9121906 0.8899032 0.8498827 0.6932786
## Cluster 3 0.9444255 0.9520383 0.9365929 0.8784043 0.8443121 0.7784638 0.7429504
## Cluster 4 0.7360036 0.7663791 0.7421949 0.6925884 0.5914116 0.5859278 0.5303141
## Cluster 5 0.8530862 0.8682888 0.8625560 0.8291724 0.8641681 0.8475259 0.8662543
                           10947
                                               10949
                                     10948
                                                         10950
                 10946
                                                                    10951
                                                                              10952
## Cluster 1 0.4930889 0.4030796 0.3047440 0.2554947 0.2212095 0.2000623 0.1767772
## Cluster 2 0.5964135 0.4594692 0.3572405 0.2850499 0.2420235 0.2129765 0.2002581
## Cluster 3 0.6742340 0.5851489 0.4684908 0.3952596 0.3374383 0.2864553 0.2688028
## Cluster 4 0.4616643 0.3831877 0.3242347 0.3026606 0.2814404 0.2617365 0.2593394
## Cluster 5 0.8559784 0.7976724 0.6885000 0.5963491 0.5288836 0.4445172 0.3738060
                 10953
                           10954
                                     10955
                                               10956
                                                         10957
                                                                    10958
                                                                              10959
## Cluster 1 0.1612639 0.1608422 0.1547878 0.1556472 0.1649416 0.1678886 0.1804748
## Cluster 2 0.1802698 0.1772375 0.1750587 0.1646188 0.1737419 0.1774663 0.1785220
## Cluster 3 0.2506057 0.2359943 0.2272837 0.2206411 0.2161915 0.2159234 0.2328043
## Cluster 4 0.2506931 0.2594838 0.2467545 0.2526968 0.2750794 0.3317798 0.3520614
## Cluster 5 0.3571250 0.3079526 0.2848017 0.2931552 0.2919784 0.2612457 0.3099612
                           10961
                                     10962
                                               10963
##
                 10960
                                                         10964
                                                                    10965
                                                                              10966
## Cluster 1 0.2171220 0.2599443 0.3190756 0.4245133 0.5219350 0.5934854 0.6778143
## Cluster 2 0.2204340 0.2989238 0.3281525 0.4195865 0.4037038 0.4709736 0.4654399
## Cluster 3 0.2327149 0.2753333 0.2852553 0.3370199 0.4098255 0.4716071 0.5620142
## Cluster 4 0.4104838 0.4940903 0.6066931 0.6431264 0.7022671 0.6349964 0.6407581
## Cluster 5 0.3022198 0.2844267 0.3139957 0.4231724 0.3652888 0.3958276 0.4146293
##
                 10967
                           10968
                                     10969
                                               10970
                                                         10971
                                                                    10972
                                                                              10973
```

```
## Cluster 1 0.7321538 0.7654337 0.7404098 0.7299841 0.7147427 0.7479748 0.7807215
## Cluster 2 0.4517859 0.5165279 0.5201701 0.4913548 0.4926422 0.5170499 0.5596012
## Cluster 3 0.6381475 0.6519801 0.7160184 0.7309901 0.7464652 0.7184184 0.7643035
## Cluster 4 0.5897040 0.6332130 0.6631733 0.5165451 0.5731227 0.5851336 0.6466390
## Cluster 5 0.5329353 0.4388534 0.5044612 0.4617845 0.4989267 0.5113276 0.5774914
                 10974
                           10975
                                     10976
                                                         10978
                                               10977
                                                                    10979
## Cluster 1 0.7170159 0.7023727 0.6910504 0.7044072 0.6889721 0.6941844 0.7912255
## Cluster 2 0.5392170 0.4983930 0.4301437 0.4646070 0.4848446 0.5184809 0.5844604
## Cluster 3 0.7449787 0.7814057 0.7689106 0.7736709 0.7359830 0.7748681 0.7975078
## Cluster 4 0.6112058 0.5394007 0.5161227 0.5576462 0.6109206 0.6639639 0.7495235
  Cluster 5 0.5877888 0.5610647 0.5173405 0.5155690 0.4955302 0.4884138 0.4516336
                                     10983
                 10981
                           10982
                                               10984
                                                         10985
                                                                    10986
                                                                              10987
## Cluster 1 0.8488912 0.9503501 1.1216764 1.1624019 1.0968462 1.0255265 0.9393236
## Cluster 2 0.5766628 0.6894282 0.8692258 1.0853959 1.0183402 0.9610557 0.9043988
## Cluster 3 0.8234993 0.8688738 1.0129262 1.0376241 1.0836780 1.0039617 0.9853121
## Cluster 4 0.7084007 0.7087906 0.8070830 0.8599350 0.8293285 0.7933899 0.7676895
## Cluster 5 0.5352672 0.5442629 0.7435172 0.7846336 0.8083664 0.7762069 0.8229569
##
                 10988
                           10989
                                     10990
                                               10991
                                                         10992
                                                                    10993
                                                                              10994
## Cluster 1 0.9260703 0.8514125 0.7852706 0.7038714 0.6185862 0.5326074 0.4473820
## Cluster 2 0.9015689 0.8759883 0.8230293 0.7693196 0.7093255 0.6131320 0.5672053
## Cluster 3 0.9887844 0.9464468 0.8800809 0.8339149 0.7648681 0.7311972 0.6284397
## Cluster 4 0.7448267 0.7332888 0.6595776 0.6456354 0.5208809 0.5054982 0.4565343
## Cluster 5 0.7839353 0.7971853 0.8212241 0.7966724 0.7576638 0.7805819 0.8076207
                 10995
                           10996
                                     10997
                                               10998
                                                          10999
                                                                    11000
## Cluster 1 0.3744748 0.3113634 0.2523355 0.2278647 0.2068369 0.1916300 0.1732546
## Cluster 2 0.4709824 0.3754457 0.2895924 0.2444897 0.2227566 0.2140352 0.1936979
## Cluster 3 0.5582426 0.4652908 0.3933390 0.3620596 0.3199617 0.2765489 0.2572979
## Cluster 4 0.4173755 0.3588953 0.3279314 0.3083466 0.2829567 0.2762202 0.2879675
## Cluster 5 0.7863836 0.6427845 0.5662328 0.4937198 0.4221466 0.3816466 0.3565129
                 11002
                           11003
                                     11004
                                               11005
                                                         11006
                                                                    11007
                                                                              11008
## Cluster 1 0.1679735 0.1616499 0.1614271 0.1670424 0.1682520 0.1672838 0.1792971
## Cluster 2 0.1845865 0.1827742 0.1824663 0.1771085 0.1703079 0.1789765 0.2201554
## Cluster 3 0.2499319 0.2303773 0.2351872 0.2325092 0.2311759 0.2314496 0.2406709
## Cluster 4 0.2914188 0.2601083 0.2660144 0.3011011 0.3291516 0.3648014 0.3769567
## Cluster 5 0.3073922 0.2768405 0.2802802 0.2849052 0.2468621 0.2897328 0.2738491
                                                         11013
                           11010
                                     11011
                                               11012
                 11009
                                                                    11014
                                                                              11015
## Cluster 1 0.2272878 0.2648554 0.3382878 0.4741910 0.5467056 0.6464443 0.7499191
## Cluster 2 0.2506979 0.2719707 0.3140323 0.3511701 0.4278035 0.5156452 0.6006950
## Cluster 3 0.2479064 0.2582099 0.2867560 0.3554326 0.4346071 0.5255688 0.6634865
## Cluster 4 0.4379567 0.5168773 0.5322310 0.5809386 0.6549170 0.6061552 0.6405343
## Cluster 5 0.2697543 0.2694784 0.3088966 0.3201983 0.3505603 0.4365388 0.5087672
                 11016
                           11017
                                     11018
                                               11019
                                                         11020
                                                                    11021
                                                                              11022
## Cluster 1 0.7768475 0.8181671 0.8963515 0.8873594 0.8914947 0.8682679 0.8172599
## Cluster 2 0.5420088 0.5973607 0.6199062 0.6182551 0.6980469 0.5981965 0.5458270
## Cluster 3 0.7088468 0.7675050 0.8388482 0.9050667 0.9118227 0.8945418 0.8701844
## Cluster 4 0.6316534 0.6629639 0.6136137 0.6462780 0.6740650 0.6478664 0.6687040
## Cluster 5 0.5049698 0.5076379 0.5532672 0.5423707 0.6685991 0.6189784 0.6431250
                                               11026
##
                 11023
                           11024
                                     11025
                                                          11027
                                                                    11028
                                                                              11029
## Cluster 1 0.7738462 0.7352997 0.6802255 0.7625610 0.8136194 0.7744310 0.8854987
## Cluster 2 0.5200792 0.5505220 0.4960088 0.4779531 0.5298270 0.5475777 0.5938563
## Cluster 3 0.8592979 0.7942879 0.8060979 0.8125106 0.8080794 0.7903319 0.7426227
## Cluster 4 0.6803718 0.5778520 0.5590289 0.6056101 0.6771336 0.7414657 0.7924874
## Cluster 5 0.6185517 0.6012284 0.6218448 0.5370991 0.5043060 0.5433276 0.6050560
##
                 11030
                           11031
                                     11032
                                               11033
                                                         11034
                                                                    11035
                                                                              11036
```

```
## Cluster 1 0.9834416 1.0318302 1.0949377 1.1079920 1.0735172 1.0229377 0.9764178
## Cluster 2 0.7245777 0.8654047 1.0601466 1.1212023 1.0564135 1.0693167 1.0697243
## Cluster 3 0.8425050 0.8550567 0.9694823 1.0112993 0.9813801 0.9467787 0.9428539
## Cluster 4 0.7722130 0.8545343 0.8885271 0.8074729 0.7703141 0.7685018 0.7447148
## Cluster 5 0.6887931 0.7529569 0.8199784 0.8781164 0.8701983 0.8856078 0.8439267
                           11038
                                     11039
                                               11040
                                                          11041
##
                 11037
                                                                    11042
                                                                              11043
## Cluster 1 0.9009244 0.8074072 0.7097387 0.5747493 0.4809416 0.3664708 0.3006273
## Cluster 2 0.9058680 0.9250059 0.7864282 0.7358416 0.6184545 0.4688944 0.3606188
## Cluster 3 0.9353773 0.9132128 0.8262567 0.7560610 0.6595518 0.5804780 0.4817915
## Cluster 4 0.7068700 0.6636245 0.5797473 0.5226282 0.4520108 0.3848303 0.3212347
  Cluster 5 0.9118017 0.9109569 0.8781466 0.8822069 0.8308966 0.7882974 0.6918233
                 11044
                           11045
                                     11046
                                               11047
                                                          11048
                                                                    11049
                                                                              11050
## Cluster 1 0.2316883 0.2014894 0.1713833 0.1664363 0.1589098 0.1527122 0.1571088
## Cluster 2 0.2887155 0.2174545 0.2014018 0.1795630 0.1718710 0.1565836 0.1575777
## Cluster 3 0.3795518 0.3203745 0.2659291 0.2332894 0.2207830 0.2091489 0.1906241
## Cluster 4 0.2980325 0.2770325 0.2526137 0.2334657 0.2433105 0.2319603 0.2316751
## Cluster 5 0.6053017 0.5196681 0.4865086 0.4139914 0.3594655 0.3407500 0.3030000
##
                 11051
                           11052
                                     11053
                                               11054
                                                          11055
                                                                    11056
                                                                              11057
## Cluster 1 0.1534854 0.1658594 0.1649602 0.1817984 0.2188992 0.2485133 0.4009284
## Cluster 2 0.1581496 0.1667126 0.1587038 0.1967214 0.2801525 0.3431085 0.4943226
## Cluster 3 0.1871177 0.1928482 0.2017957 0.2111050 0.2415433 0.2913078 0.3883475
## Cluster 4 0.2486137 0.2875740 0.2720650 0.3170794 0.3982924 0.5990181 0.8221949
## Cluster 5 0.2759526 0.2895086 0.2935129 0.2718319 0.2944569 0.3182328 0.3800345
                 11058
                           11059
                                     11060
                                               11061
                                                          11062
                                                                    11063
## Cluster 1 0.5205942 0.5565438 0.5390438 0.5489456 0.5209947 0.5133183 0.4705451
## Cluster 2 0.5369413 0.4756686 0.3821202 0.3075103 0.2886305 0.2768739 0.2528534
## Cluster 3 0.4413121 0.4653106 0.4616908 0.4467972 0.4899957 0.5142610 0.5027560
## Cluster 4 0.8378339 0.8561336 0.6480758 0.5530939 0.4622744 0.4372635 0.4314549
## Cluster 5 0.4184440 0.5060819 0.4345129 0.4431767 0.4125517 0.3676983 0.3717328
##
                 11065
                           11066
                                     11067
                                               11068
                                                          11069
                                                                    11070
                                                                              11071
## Cluster 1 0.4937573 0.4723554 0.5371286 0.5053700 0.5552984 0.5176459 0.5009337
## Cluster 2 0.2534487 0.2572698 0.2600323 0.2517243 0.2699589 0.2561378 0.2520762
## Cluster 3 0.5071858 0.5371078 0.5174567 0.5817901 0.5760496 0.5658965 0.5460099
## Cluster 4 0.3930072 0.4200181 0.3851155 0.4107978 0.4369964 0.3771336 0.4051444
  Cluster 5 0.3977888 0.3175345 0.3663448 0.3615603 0.3898922 0.4043319 0.3241940
                 11072
                                     11074
                                                          11076
                                               11075
                           11073
                                                                    11077
## Cluster 1 0.5116180 0.5084350 0.5680424 0.6478263 0.7596260 0.9257056 1.1291432
## Cluster 2 0.2670381 0.2634780 0.2852434 0.3503490 0.4429003 0.5026158 0.6014985
## Cluster 3 0.5777972 0.6137773 0.6675149 0.7454894 0.8202993 0.7935986 0.8368355
## Cluster 4 0.3912744 0.4579206 0.5072599 0.6362130 0.6945921 0.8054693 0.8307256
## Cluster 5 0.3065517 0.3231853 0.3395043 0.3715819 0.4016595 0.4741034 0.5376767
                 11079
                           11080
                                     11081
                                               11082
                                                          11083
                                                                    11084
                                                                              11085
## Cluster 1 1.1632122 1.0856393 1.1208528 1.0876180 1.0493223 0.9901538 0.9188369
## Cluster 2 0.8411935 1.0725455 1.1352551 1.1833490 1.0506070 1.0691554 1.0809443
## Cluster 3 0.8900936 1.0077121 1.0139333 0.9949418 0.9578709 0.9708965 0.9348184
## Cluster 4 0.8570686 0.8824079 0.8609097 0.7757473 0.7304043 0.7257581 0.7025957
## Cluster 5 0.5684526 0.6975086 0.7705043 0.8609353 0.8054310 0.7804310 0.8699353
                           11087
                                     11088
                                               11089
                                                          11090
##
                 11086
                                                                    11091
                                                                              11092
## Cluster 1 0.8302467 0.7263156 0.6033064 0.5105716 0.3698674 0.2563793 0.2209509
## Cluster 2 0.9775337 0.9214018 0.7348328 0.6261320 0.5090587 0.3679120 0.2614575
## Cluster 3 0.8854823 0.8649759 0.8072468 0.7310156 0.5815702 0.4468156 0.3588383
## Cluster 4 0.6525415 0.6048087 0.5565921 0.4576354 0.3672058 0.3271408 0.2980181
## Cluster 5 0.9087026 0.8521034 0.8205086 0.8712500 0.7531509 0.6601034 0.5790474
##
                 11093
                           11094
                                     11095
                                               11096
                                                          11097
                                                                    11098
                                                                              11099
```

```
## Cluster 1 0.1924894 0.1729881 0.1617798 0.1525133 0.1497228 0.1465371 0.1549576
## Cluster 2 0.2062258 0.1688739 0.1548710 0.1547830 0.1475572 0.1541290 0.1504868
## Cluster 3 0.2832567 0.2465418 0.2222014 0.2052809 0.2045887 0.2000255 0.1929447
## Cluster 4 0.2770903 0.2411949 0.2419206 0.2445090 0.2300722 0.2392599 0.2508628
## Cluster 5 0.5092629 0.4426940 0.3923621 0.3356422 0.3207026 0.2701164 0.2522371
                 11100
                           11101
                                     11102
                                               11103
                                                          11104
                                                                    11105
## Cluster 1 0.1559244 0.1665690 0.1783488 0.2140531 0.2690477 0.4415212 0.6029934
## Cluster 2 0.1482346 0.1489912 0.1847830 0.2743402 0.4028974 0.5040205 0.5704868
## Cluster 3 0.1971631 0.2065348 0.2124922 0.2430326 0.2853234 0.3596567 0.4475759
## Cluster 4 0.3167834 0.3048087 0.3333574 0.4155271 0.6316823 0.8163682 0.8964332
  Cluster 5 0.2692672 0.2912888 0.2483966 0.3177500 0.3650560 0.3914569 0.4126983
                 11107
                           11108
                                     11109
                                                11110
                                                          11111
                                                                    11112
                                                                              11113
## Cluster 1 0.5844164 0.5232931 0.5292387 0.5512997 0.5184058 0.4758103 0.4843727
## Cluster 2 0.4767566 0.3151232 0.2759531 0.2364780 0.2500205 0.2589003 0.2383842
## Cluster 3 0.5059135 0.4740284 0.4963291 0.4519858 0.4605461 0.4827901 0.4869603
## Cluster 4 0.7125090 0.6066823 0.4963213 0.4175018 0.4039278 0.4263899 0.4382347
## Cluster 5 0.4420474 0.4131897 0.3893879 0.3495862 0.3654828 0.3728750 0.3967845
##
                 11114
                           11115
                                     11116
                                               11117
                                                          11118
                                                                    11119
                                                                              11120
## Cluster 1 0.4984085 0.4989668 0.4741101 0.4906074 0.5117812 0.4954881 0.5269854
## Cluster 2 0.2226422 0.2389765 0.2532053 0.2905073 0.2500205 0.2574633 0.2674076
## Cluster 3 0.5089603 0.5318213 0.5586057 0.5723532 0.5337617 0.5296298 0.5388723
## Cluster 4 0.3982888 0.3533827 0.4089314 0.4502888 0.4321227 0.4068159 0.4248953
## Cluster 5 0.3580345 0.3330905 0.3399698 0.3675862 0.3839612 0.3550819 0.3815733
                 11121
                           11122
                                     11123
                                                11124
                                                          11125
                                                                    11126
## Cluster 1 0.5492838 0.5891698 0.6708249 0.7795743 0.9948621 1.1347467 1.1829204
## Cluster 2 0.2860352 0.3109062 0.3466334 0.3679032 0.4858563 0.7050557 0.9866804
## Cluster 3 0.6131716 0.6599376 0.7660411 0.8539787 0.8474156 0.8941716 0.9556099
## Cluster 4 0.4837112 0.5468375 0.6281264 0.7162347 0.7923574 0.8097292 0.7912058
## Cluster 5 0.4008664 0.3925991 0.4179353 0.4614224 0.4951422 0.5169224 0.6802069
##
                 11128
                           11129
                                     11130
                                               11131
                                                         11132
                                                                    11133
                                                                              11134
## Cluster 1 1.1212414 1.0763050 1.0577175 1.0172162 0.9719138 0.9248780 0.8614257
## Cluster 2 1.1293284 1.2308974 1.1764839 1.1386862 1.1609326 1.0513284 0.9942874
## Cluster 3 1.0000270 1.0195844 0.9764000 0.9688128 1.0154894 0.9771603 0.9490071
## Cluster 4 0.8158592 0.8432924 0.7638628 0.7133646 0.7104440 0.7173538 0.6716606
## Cluster 5 0.7608922 0.7978491 0.8460302 0.8599784 0.8323276 0.8141983 0.8243103
                 11135
                           11136
                                     11137
                                               11138
                                                          11139
                                                                    11140
## Cluster 1 0.7885849 0.6395862 0.5315557 0.4111326 0.2996353 0.2266605 0.1951512
## Cluster 2 0.8750762 0.7727449 0.6125660 0.4259912 0.3268035 0.2322845 0.1911466
## Cluster 3 0.8822823 0.7774014 0.6937887 0.5952624 0.4681191 0.3757688 0.3019986
## Cluster 4 0.6101841 0.5455199 0.4597581 0.3954188 0.3129711 0.2773285 0.2694188
## Cluster 5 0.8914741 0.8445647 0.8786552 0.7879009 0.6756336 0.6001336 0.5218190
                 11142
                           11143
                                     11144
                                               11145
                                                          11146
                                                                    11147
                                                                              11148
## Cluster 1 0.1795239 0.1657507 0.1561419 0.1560597 0.1482812 0.1488329 0.1557480
## Cluster 2 0.1772023 0.1597038 0.1628152 0.1468006 0.1540587 0.1508680 0.1512727
## Cluster 3 0.2528525 0.2297220 0.2194071 0.2068270 0.2044681 0.1977149 0.2083645
## Cluster 4 0.2524404 0.2352238 0.2216318 0.2250722 0.2376029 0.2622599 0.2904801
## Cluster 5 0.4427328 0.3971164 0.3869224 0.3496078 0.2935388 0.2936853 0.2747802
##
                 11149
                           11150
                                     11151
                                                11152
                                                          11153
                                                                    11154
                                                                              11155
## Cluster 1 0.1666883 0.1731578 0.2128037 0.2630517 0.4014682 0.5839284 0.5769244
## Cluster 2 0.1611320 0.1985865 0.2503519 0.3578651 0.4660117 0.5651290 0.4832317
## Cluster 3 0.2103844 0.2164780 0.2488496 0.2838057 0.3848752 0.4547447 0.4789504
## Cluster 4 0.2730253 0.3229892 0.4341588 0.6040469 0.8446570 0.9374729 0.7982310
## Cluster 5 0.2855302 0.2626983 0.3352759 0.3751983 0.3996078 0.4284267 0.4929181
                                                          11160
##
                 11156
                           11157
                                     11158
                                               11159
                                                                    11161
```

```
## Cluster 1 0.5481366 0.5518117 0.5580809 0.5255013 0.4927480 0.4823926 0.4971379
## Cluster 2 0.3269560 0.2673402 0.2564839 0.2446804 0.2683607 0.2590059 0.2303666
## Cluster 3 0.4784355 0.4536865 0.4564709 0.4997461 0.5062752 0.5032170 0.5230255
## Cluster 4 0.5528700 0.5242347 0.4362238 0.4242419 0.3972347 0.3700578 0.3837870
## Cluster 5 0.4466034 0.3866595 0.3520647 0.3913405 0.3788233 0.3467802 0.3498362
                 11163
                           11164
                                     11165
                                               11166
                                                                    11168
                                                          11167
## Cluster 1 0.5166048 0.5534377 0.5575133 0.5180398 0.5235902 0.5138859 0.5389947
## Cluster 2 0.2187390 0.2338358 0.2606891 0.2706070 0.2524428 0.2630469 0.2761290
## Cluster 3 0.5467660 0.5607504 0.6115418 0.5990922 0.5536936 0.5870794 0.6385078
## Cluster 4 0.3855776 0.4226715 0.4159639 0.4118339 0.3995487 0.4387112 0.4657834
  Cluster 5 0.3887629 0.3850991 0.4467543 0.4339181 0.4125517 0.3782802 0.3901293
                 11170
                           11171
                                     11172
                                                11173
                                                          11174
                                                                    11175
                                                                              11176
## Cluster 1 0.5823329 0.6576512 0.7913448 0.9619430 1.0814284 1.0918316 1.0971790
## Cluster 2 0.3307243 0.3733959 0.3967507 0.4906393 0.6264868 0.8415660 1.0495718
## Cluster 3 0.7407532 0.8094411 0.8607603 0.8258284 0.8774482 0.9364142 0.9781730
## Cluster 4 0.4792816 0.5576065 0.7032996 0.7781119 0.8920361 0.8438123 0.8330542
## Cluster 5 0.4229483 0.4516121 0.4354483 0.5390560 0.5915388 0.6921638 0.8359397
##
                 11177
                           11178
                                     11179
                                               11180
                                                          11181
                                                                    11182
                                                                              11183
## Cluster 1 1.0798607 1.0610225 1.0019496 0.9622639 0.8837255 0.7845597 0.7372255
## Cluster 2 1.1738299 1.1884721 1.1557859 1.0685073 1.0683284 1.0260528 0.8936188
## Cluster 3 0.9741177 0.9714596 0.9512128 0.9339972 0.9549305 0.9255972 0.9141305
## Cluster 4 0.8825884 0.7536570 0.7465704 0.7491119 0.7228736 0.6840144 0.6131119
## Cluster 5 0.8455302 0.8401466 0.8642457 0.8304914 0.8904569 0.8553966 0.8810388
                 11184
                           11185
                                     11186
                                                11187
                                                          11188
                                                                    11189
## Cluster 1 0.6226565 0.4865504 0.3909178 0.3088329 0.2249045 0.1897241 0.1673581
## Cluster 2 0.8227038 0.6367331 0.4777713 0.3434985 0.2516540 0.2043519 0.1824428
## Cluster 3 0.7654496 0.6836539 0.5864284 0.4657404 0.3763404 0.3002553 0.2547376
## Cluster 4 0.5395199 0.4824982 0.4127762 0.3226137 0.2773574 0.2473069 0.2414079
## Cluster 5 0.8146034 0.8389914 0.7886724 0.6764655 0.5508621 0.4357328 0.4100216
                 11191
                           11192
                                     11193
                                               11194
                                                          11195
                                                                    11196
                                                                              11197
## Cluster 1 0.1598355 0.1528050 0.1499788 0.1483992 0.1486538 0.1572281 0.1626790
## Cluster 2 0.1695924 0.1687625 0.1617595 0.1689208 0.1569355 0.1562111 0.1690117
## Cluster 3 0.2339248 0.2214922 0.2075504 0.2076468 0.2002043 0.2047674 0.2035518
## Cluster 4 0.2173105 0.2245307 0.2189892 0.2365632 0.2444440 0.2733682 0.2629603
## Cluster 5 0.3345776 0.3077543 0.3238017 0.2990776 0.2772629 0.2948060 0.2760862
                           11199
                                     11200
                                               11201
                                                          11202
                 11198
                                                                    11203
                                                                              11204
## Cluster 1 0.1742374 0.1965531 0.2777467 0.4305663 0.5510729 0.5782560 0.5619814
## Cluster 2 0.1882874 0.2656950 0.3849677 0.5105073 0.5272111 0.5100587 0.3675073
## Cluster 3 0.2054482 0.2350950 0.2817433 0.3817617 0.4549986 0.4947220 0.4836993
## Cluster 4 0.3442022 0.4599639 0.6217690 0.7692310 0.8618051 0.7753538 0.5545126
## Cluster 5 0.2602414 0.3007759 0.3109224 0.3574698 0.4703319 0.4365862 0.4464224
                 11205
                           11206
                                     11207
                                               11208
                                                          11209
                                                                    11210
## Cluster 1 0.5355491 0.5521366 0.5207838 0.4838156 0.4642440 0.4779204 0.4597149
## Cluster 2 0.2962229 0.2650352 0.2636804 0.2989472 0.2472229 0.2192170 0.1999883
## Cluster 3 0.4892539 0.4709830 0.5025277 0.4846085 0.4780057 0.5081957 0.4949830
## Cluster 4 0.4828845 0.4732671 0.4324116 0.3888809 0.4068123 0.4055018 0.4089134
## Cluster 5 0.4055431 0.3777155 0.3774052 0.3791983 0.3278103 0.3080259 0.3535819
                           11213
##
                 11212
                                     11214
                                                11215
                                                          11216
                                                                    11217
                                                                              11218
## Cluster 1 0.4515172 0.4439655 0.4033979 0.4101751 0.4525663 0.4630252 0.4861684
## Cluster 2 0.2204692 0.2385982 0.2450059 0.2257713 0.2104721 0.2354194 0.2782757
## Cluster 3 0.5500142 0.5547560 0.4876199 0.5152894 0.5454482 0.6051262 0.6375745
## Cluster 4 0.4027509 0.3525343 0.3373032 0.4075199 0.4562852 0.4670722 0.5003430
## Cluster 5 0.3579655 0.3694612 0.3295690 0.3279741 0.3409267 0.3466810 0.3562457
##
                 11219
                           11220
                                     11221
                                               11222
                                                          11223
                                                                    11224
                                                                              11225
```

```
## Cluster 1 0.6037706 0.7536101 0.9070690 1.0481804 1.0144019 1.0863130 1.0684907
## Cluster 2 0.2988768 0.3874487 0.4608798 0.5771701 0.7551584 0.9419032 1.0865572
## Cluster 3 0.6999589 0.7426014 0.7991092 0.8219348 0.9021206 0.9850298 1.0318199
## Cluster 4 0.5842888 0.6369350 0.6772635 0.7887401 0.8320325 0.8534874 0.7949567
## Cluster 5 0.3949224 0.4028922 0.4664612 0.5729353 0.5904698 0.7147457 0.8255690
                 11226
                                     11228
                                               11229
                                                          11230
                                                                    11231
                           11227
                                                                              11232
## Cluster 1 1.0360531 1.0325862 0.9631658 0.9119841 0.8605172 0.7229947 0.6178475
## Cluster 2 1.0200117 1.0712170 1.0636158 0.9927977 0.9745777 0.8583959 0.7944223
## Cluster 3 0.9623106 0.9543404 0.9914780 0.9099461 0.8950085 0.8379631 0.7686936
## Cluster 4 0.7286426 0.7668773 0.7015596 0.6811625 0.6376570 0.6031300 0.5183538
  Cluster 5 0.8561379 0.8233491 0.8293664 0.8853707 0.8315517 0.8172802 0.8237414
                 11233
                           11234
                                     11235
                                                11236
                                                          11237
                                                                    11238
                                                                              11239
## Cluster 1 0.5219045 0.3915477 0.2879045 0.2349682 0.1919284 0.1723952 0.1633276
## Cluster 2 0.6593079 0.5083138 0.3482786 0.2560117 0.2083372 0.1963402 0.1868006
## Cluster 3 0.6960979 0.5987149 0.4884738 0.4041262 0.3245759 0.2686979 0.2422482
## Cluster 4 0.4687076 0.4052238 0.3605848 0.2918556 0.2534188 0.2447148 0.2430903
## Cluster 5 0.8129224 0.7714612 0.6950560 0.5827457 0.4665172 0.4215905 0.3712112
##
                 11240
                           11241
                                     11242
                                               11243
                                                          11244
                                                                    11245
                                                                              11246
## Cluster 1 0.1515424 0.1486737 0.1457971 0.1486021 0.1551538 0.1643899 0.1641207
## Cluster 2 0.1617977 0.1512903 0.1580411 0.1599120 0.1516833 0.1558446 0.1890469
## Cluster 3 0.2158695 0.2088610 0.2012511 0.1980184 0.2007262 0.2128709 0.2175518
## Cluster 4 0.2452238 0.2382166 0.2372563 0.2560108 0.2891011 0.2890144 0.3435054
## Cluster 5 0.3262328 0.3285086 0.2922328 0.2764052 0.3119224 0.3046767 0.2817629
                 11247
                           11248
                                     11249
                                                11250
                                                          11251
                                                                    11252
## Cluster 1 0.1948170 0.2687095 0.4307891 0.5777241 0.6206870 0.5975358 0.5625040
## Cluster 2 0.2985044 0.3687067 0.4600909 0.5428240 0.5262610 0.3622053 0.3181994
## Cluster 3 0.2402922 0.2738057 0.3699078 0.4353376 0.4675277 0.4973191 0.4951858
## Cluster 4 0.4426931 0.5993899 0.8049892 0.8440975 0.7536643 0.5412491 0.5233538
## Cluster 5 0.3219526 0.3308362 0.3838707 0.4476034 0.4422716 0.4629483 0.3789784
                 11254
                           11255
                                     11256
                                               11257
                                                          11258
                                                                    11259
                                                                              11260
## Cluster 1 0.5451976 0.5296631 0.4851578 0.4628899 0.4375584 0.4297122 0.4460690
## Cluster 2 0.2797185 0.2819619 0.2870616 0.2691642 0.2765748 0.2215308 0.2553842
## Cluster 3 0.5229929 0.5394823 0.5032496 0.5139858 0.5039305 0.5016028 0.5687773
## Cluster 4 0.4516643 0.4369639 0.3838195 0.3786931 0.3754224 0.3576643 0.3606895
## Cluster 5 0.4064698 0.3519052 0.3942155 0.3870474 0.3473793 0.3925086 0.3426853
                                                          11265
                           11262
                                     11263
                 11261
                                               11264
                                                                    11266
                                                                              11267
## Cluster 1 0.4904496 0.4412175 0.4306790 0.4496525 0.4742599 0.5096976 0.6428103
## Cluster 2 0.2938270 0.2672111 0.2598886 0.2512786 0.2439032 0.3032522 0.3161760
## Cluster 3 0.5362511 0.5112213 0.5277092 0.5606908 0.5661688 0.6419262 0.6995574
## Cluster 4 0.3850217 0.3597942 0.3927581 0.4676354 0.4934368 0.5398953 0.6276715
## Cluster 5 0.3701940 0.3412586 0.3569569 0.3171767 0.3301767 0.3135517 0.3760517
                 11268
                           11269
                                     11270
                                               11271
                                                          11272
                                                                    11273
                                                                              11274
## Cluster 1 0.7296313 0.8567666 0.9420928 1.0374695 1.0860252 1.0749297 1.0189748
## Cluster 2 0.3728563 0.5002199 0.6217009 0.8503167 0.9612375 1.0816891 1.0060587
## Cluster 3 0.7239546 0.7913504 0.7636284 0.8210837 0.9423972 1.0142809 0.9862908
## Cluster 4 0.6529892 0.7443321 0.8348014 0.7900903 0.7497329 0.7851913 0.7533249
## Cluster 5 0.3915733 0.4461293 0.5075776 0.6326853 0.7733103 0.8275991 0.7309784
##
                 11275
                           11276
                                     11277
                                                11278
                                                          11279
                                                                    11280
                                                                              11281
## Cluster 1 0.9500225 0.8993806 0.8809443 0.7954058 0.7370915 0.6618846 0.5645504
## Cluster 2 1.0857038 1.0966452 1.0324927 0.9389765 0.8677947 0.8149941 0.7108651
## Cluster 3 0.9128752 0.8975546 0.9193177 0.8686426 0.8281702 0.7784865 0.7496426
## Cluster 4 0.7354513 0.7455596 0.6920650 0.6351805 0.6169819 0.5197401 0.4712744
## Cluster 5 0.7226034 0.7400819 0.7805216 0.7956552 0.7939828 0.7851336 0.7822974
##
                 11282
                           11283
                                     11284
                                               11285
                                                          11286
                                                                    11287
```

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## Cluster 1 0.4717639 0.3744894 0.2872029 0.2324655 0.1990066 0.1875345 0.1789005
## Cluster 2 0.5997625 0.4758475 0.3410147 0.2663695 0.2233607 0.1935630 0.1753842
## Cluster 3 0.6830936 0.6027191 0.4968482 0.3843773 0.3282340 0.2833574 0.2444950
## Cluster 4 0.4282419 0.3963032 0.3312202 0.2903394 0.2697220 0.2534116 0.2632744
## Cluster 5 0.7687716 0.7027112 0.6110302 0.5388405 0.4855862 0.4056983 0.3346293
                 11289
                           11290
                                               11292
                                                         11293
                                                                    11294
##
                                     11291
                                                                              11295
## Cluster 1 0.1696804 0.1622838 0.1533064 0.1558329 0.1605584 0.1642454 0.1710053
## Cluster 2 0.1735718 0.1651818 0.1638240 0.1565924 0.1632639 0.1782375 0.2044164
## Cluster 3 0.2299759 0.2104383 0.2159546 0.2154511 0.2254000 0.2197986 0.2350071
## Cluster 4 0.2662744 0.2638159 0.2621805 0.2833466 0.2829422 0.3056498 0.3545740
  Cluster 5 0.3323750 0.2987328 0.2887888 0.3067457 0.2871681 0.2571681 0.3041509
                 11296
                           11297
                                     11298
                                               11299
                                                         11300
                                                                    11301
                                                                              11302
## Cluster 1 0.1970119 0.2572560 0.3265199 0.4126711 0.5370146 0.6257056 0.6622533
## Cluster 2 0.2290381 0.2552346 0.3080205 0.4000499 0.4517243 0.4449912 0.5142903
## Cluster 3 0.2342993 0.2670851 0.3090752 0.3825773 0.4357461 0.4713887 0.5442766
## Cluster 4 0.4169278 0.5447401 0.6377870 0.6373502 0.6227870 0.6492816 0.6556209
## Cluster 5 0.2902112 0.3006336 0.3464784 0.3502155 0.3929353 0.4351293 0.4199052
##
                 11303
                           11304
                                     11305
                                               11306
                                                         11307
                                                                    11308
                                                                              11309
## Cluster 1 0.7262613 0.7568143 0.7562586 0.6987109 0.7078952 0.7005597 0.7156286
## Cluster 2 0.5140381 0.4197977 0.4391144 0.4071085 0.4358798 0.5091026 0.5024311
## Cluster 3 0.6173007 0.6490922 0.6876525 0.7207191 0.6771504 0.7128596 0.7635234
## Cluster 4 0.6731264 0.6341588 0.6146282 0.5270000 0.4741011 0.4842671 0.5680505
## Cluster 5 0.4672672 0.4933190 0.5177888 0.5089440 0.4754181 0.5228879 0.5715431
                 11310
                           11311
                                     11312
                                               11313
                                                         11314
                                                                    11315
## Cluster 1 0.7106618 0.6598992 0.6675411 0.6434324 0.6362785 0.7334682 0.8462825
## Cluster 2 0.5074047 0.4986862 0.4499853 0.5139003 0.4955689 0.5684428 0.6240411
## Cluster 3 0.7861957 0.7502567 0.7613957 0.7409262 0.7254496 0.7573759 0.8116000
## Cluster 4 0.5416065 0.5641949 0.5332022 0.6005415 0.6707726 0.6307617 0.6742310
## Cluster 5 0.5274526 0.5442371 0.4435603 0.4953966 0.5126207 0.5452371 0.4803103
##
                 11317
                           11318
                                     11319
                                               11320
                                                         11321
                                                                    11322
                                                                              11323
## Cluster 1 0.8798143 1.0159178 1.0726167 1.0759509 1.1227255 1.0788395 0.9945119
## Cluster 2 0.6576041 0.7935367 0.9668387 1.0354428 1.1407067 1.0721378 0.9743578
## Cluster 3 0.8516553 0.8890652 0.9514823 1.0241234 1.0649830 0.9855716 0.9998809
## Cluster 4 0.7995379 0.7754982 0.7867329 0.8504657 0.7962455 0.8024188 0.7403682
## Cluster 5 0.5387845 0.6232112 0.6375905 0.7896509 0.7667974 0.8231853 0.8808578
                                                         11328
                 11324
                           11325
                                               11327
                                     11326
                                                                    11329
                                                                              11330
## Cluster 1 0.8956247 0.8302122 0.7575995 0.7165398 0.6367958 0.5342878 0.4548873
## Cluster 2 1.0034223 0.9026422 0.9003988 0.8839853 0.7233754 0.6475220 0.5629091
## Cluster 3 1.0155291 0.9277716 0.8643972 0.8079035 0.7676738 0.7114355 0.6180199
## Cluster 4 0.6961949 0.6894513 0.6025018 0.5503502 0.5031697 0.4519170 0.4086426
## Cluster 5 0.8596853 0.8939267 0.8697155 0.8623017 0.8455172 0.8074957 0.8156509
                 11331
                           11332
                                     11333
                                               11334
                                                         11335
                                                                    11336
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## Cluster 1 0.3607865 0.2931671 0.2643236 0.2215292 0.2098873 0.1933753 0.1840411
## Cluster 2 0.4657009 0.3866481 0.3007654 0.2601584 0.2242317 0.1868182 0.1674018
## Cluster 3 0.5365064 0.4667943 0.3817404 0.3494369 0.2980965 0.2656241 0.2433972
## Cluster 4 0.3712455 0.3216245 0.2961083 0.2803069 0.2588953 0.2667798 0.2591300
## Cluster 5 0.7975000 0.6807586 0.5938233 0.5020819 0.4035690 0.3607069 0.3404828
                 11338
##
                           11339
                                     11340
                                               11341
                                                          11342
                                                                    11343
                                                                              11344
## Cluster 1 0.1751830 0.1669443 0.1638382 0.1676592 0.1689576 0.1719164 0.1903090
## Cluster 2 0.1635689 0.1671290 0.1551789 0.1673079 0.1594897 0.1817889 0.2040528
## Cluster 3 0.2309348 0.2263092 0.2200213 0.2210780 0.2249645 0.2280993 0.2354326
## Cluster 4 0.2479856 0.2473069 0.2580830 0.2594043 0.3040722 0.3528917 0.3572563
## Cluster 5 0.3054267 0.2915733 0.3302629 0.3071983 0.2651595 0.2934181 0.2997284
##
                 11345
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                                                         11349
                                                                    11350
                                                                              11351
```

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## Cluster 1 0.2261180 0.2815729 0.3740756 0.5310318 0.6023117 0.7054682 0.7403528
## Cluster 2 0.2298387 0.2794516 0.3225660 0.3242493 0.4057537 0.4345220 0.5085425
## Cluster 3 0.2410596 0.2726241 0.3447617 0.4161277 0.4569617 0.5126227 0.6059532
## Cluster 4 0.4301372 0.4931336 0.5441227 0.5270866 0.6016823 0.6443899 0.6493357
## Cluster 5 0.2760733 0.3303017 0.3548448 0.3599655 0.3733319 0.4474828 0.5031983
                 11352
                                                         11356
                                                                    11357
                           11353
                                     11354
                                               11355
                                                                              11358
## Cluster 1 0.7780491 0.8169629 0.8138462 0.8082215 0.8889443 0.8780252 0.8090650
## Cluster 2 0.5330616 0.5746012 0.5678768 0.5504809 0.5691935 0.6306305 0.5294692
## Cluster 3 0.7153078 0.7273390 0.6911574 0.7962865 0.8695447 0.8324383 0.8401631
## Cluster 4 0.6781047 0.6708700 0.6279675 0.6970072 0.6440650 0.6365523 0.6035451
  Cluster 5 0.5268276 0.5453707 0.4924052 0.5442931 0.5390560 0.5695302 0.5414353
                           11360
                 11359
                                     11361
                                               11362
                                                         11363
                                                                    11364
                                                                              11365
## Cluster 1 0.7361313 0.6984284 0.6939973 0.6405955 0.7228952 0.7506300 0.8126008
## Cluster 2 0.5141613 0.5167771 0.5478974 0.4607067 0.4979883 0.5306716 0.5825982
## Cluster 3 0.8278780 0.7399319 0.7274326 0.7506426 0.7303929 0.7252610 0.7537348
## Cluster 4 0.6994116 0.6547870 0.6786931 0.6497870 0.6854765 0.7043285 0.7246570
## Cluster 5 0.5693405 0.4934655 0.5177457 0.5012198 0.4445345 0.5065216 0.5407716
##
                 11366
                           11367
                                     11368
                                               11369
                                                         11370
                                                                    11371
## Cluster 1 0.8765809 0.9557056 1.0552082 1.0104682 0.9954735 0.9732374 0.9396034
## Cluster 2 0.7153402 0.8575572 1.0454633 1.1265630 1.1280176 1.0351965 0.9916774
## Cluster 3 0.8044908 0.8153475 0.9220397 0.9513872 0.9789418 0.9377915 0.9340993
## Cluster 4 0.8182202 0.8027653 0.7928195 0.7508953 0.7670505 0.7421264 0.7610108
## Cluster 5 0.5577241 0.6378276 0.7737543 0.8624181 0.8552586 0.8408319 0.8043233
                 11373
                           11374
                                     11375
                                               11376
                                                         11377
                                                                    11378
## Cluster 1 0.8604788 0.7805066 0.6929151 0.5834178 0.4732573 0.3568515 0.2809682
## Cluster 2 0.9781525 0.9209267 0.8025689 0.7198270 0.5548680 0.4413900 0.3334428
## Cluster 3 0.9153716 0.8577404 0.8029816 0.7420099 0.6398837 0.5431915 0.4533816
## Cluster 4 0.7307653 0.6452852 0.6325487 0.5576498 0.4525126 0.3846462 0.3181300
## Cluster 5 0.8828664 0.9084181 0.8739828 0.7979483 0.8342672 0.7769828 0.6510776
                 11380
                           11381
                                     11382
                                               11383
                                                         11384
                                                                    11385
                                                                              11386
## Cluster 1 0.2243329 0.1907228 0.1729297 0.1702905 0.1644788 0.1627268 0.1667215
## Cluster 2 0.2582522 0.1955572 0.1877801 0.1628504 0.1572287 0.1415982 0.1454985
## Cluster 3 0.3799858 0.3111064 0.2785461 0.2423872 0.2214809 0.2158496 0.2096142
## Cluster 4 0.2998412 0.2660181 0.2570650 0.2319242 0.2287726 0.2386426 0.2390433
## Cluster 5 0.5504483 0.4873276 0.4194698 0.3575690 0.3127241 0.3124828 0.2823190
                           11388
                                     11389
                                               11390
                                                         11391
                 11387
                                                                    11392
                                                                              11393
## Cluster 1 0.1606711 0.1644841 0.1627241 0.1668793 0.1907958 0.2709735 0.3989721
## Cluster 2 0.1469003 0.1460440 0.1557097 0.1930557 0.2916716 0.3555103 0.4389062
## Cluster 3 0.2039603 0.2096738 0.2137745 0.2234752 0.2544936 0.2834199 0.3557404
## Cluster 4 0.2472780 0.2618339 0.2712960 0.3363032 0.3852708 0.5848195 0.7801733
## Cluster 5 0.2737974 0.2892759 0.2867026 0.2571552 0.2943836 0.3402371 0.3613621
                 11394
                           11395
                                     11396
                                               11397
                                                         11398
                                                                    11399
                                                                              11400
## Cluster 1 0.5512745 0.5700756 0.5481976 0.5249310 0.5212135 0.5140942 0.5259337
## Cluster 2 0.5619032 0.4383226 0.3504340 0.3171584 0.3395367 0.3165044 0.2669824
## Cluster 3 0.4267674 0.4798695 0.4480879 0.4499674 0.4844610 0.4663986 0.5045234
## Cluster 4 0.8918448 0.7702383 0.5469314 0.4510325 0.4751516 0.4053213 0.4025560
## Cluster 5 0.4056379 0.5250043 0.4644784 0.3778362 0.3211681 0.3894397 0.3969353
##
                 11401
                           11402
                                     11403
                                               11404
                                                          11405
                                                                    11406
                                                                              11407
## Cluster 1 0.4778223 0.4785915 0.5015239 0.4977520 0.5244390 0.5193236 0.4495424
## Cluster 2 0.2758035 0.2762199 0.2502463 0.2664897 0.3330938 0.2848123 0.2775924
## Cluster 3 0.4846156 0.5119631 0.5113262 0.5588894 0.5935589 0.5406199 0.5296482
## Cluster 4 0.4260975 0.4251264 0.4021480 0.4202888 0.4524188 0.4401877 0.4229170
## Cluster 5 0.3976983 0.4052974 0.4016853 0.4084181 0.3679871 0.3397155 0.3633621
##
                 11408
                           11409
                                     11410
                                               11411
                                                         11412
                                                                    11413
                                                                              11414
```

```
## Cluster 1 0.4556220 0.5099655 0.5354337 0.6402997 0.7746830 0.9753316 1.0628024
## Cluster 2 0.2924428 0.3055103 0.3086012 0.3329443 0.3641085 0.4637214 0.6230968
## Cluster 3 0.5649532 0.5860965 0.6556241 0.6848241 0.7627617 0.8242596 0.8707376
## Cluster 4 0.4375740 0.4746245 0.4887401 0.5583321 0.7056679 0.7764585 0.8000975
## Cluster 5 0.3508147 0.4092414 0.3715129 0.4091207 0.4521034 0.5224612 0.5575733
                 11415
                           11416
                                               11418
                                                         11419
                                                                    11420
                                     11417
## Cluster 1 1.0844973 1.1060225 1.1270557 1.0849257 0.9891260 0.9862401 0.9468621
## Cluster 2 0.8185601 0.9674663 1.2099091 1.1948974 1.1444897 1.0884927 1.1512874
## Cluster 3 0.8763007 0.9617433 0.9846894 1.0363305 1.0030113 0.9960057 0.9532170
## Cluster 4 0.7649964 0.8280614 0.8667653 0.8495884 0.7868664 0.7623971 0.7108375
  Cluster 5 0.6505431 0.7531810 0.8106897 0.7884569 0.7603319 0.7821983 0.8583922
                           11423
                 11422
                                     11424
                                               11425
                                                         11426
                                                                    11427
## Cluster 1 0.8218846 0.7127944 0.6176300 0.5072401 0.4023793 0.2779284 0.2227387
## Cluster 2 0.9992522 0.8752317 0.7542933 0.5953783 0.4471760 0.3201848 0.2499179
## Cluster 3 0.9200752 0.8334894 0.7645277 0.7074284 0.5767220 0.4731319 0.3721220
## Cluster 4 0.6643466 0.6308664 0.6127509 0.4853791 0.4131300 0.3597942 0.3205415
## Cluster 5 0.8137759 0.8267371 0.8641078 0.8632112 0.7596638 0.6666121 0.5867414
##
                 11429
                           11430
                                     11431
                                               11432
                                                         11433
                                                                    11434
                                                                              11435
## Cluster 1 0.1884271 0.1699947 0.1608475 0.1617069 0.1531008 0.1519576 0.1560769
## Cluster 2 0.2078680 0.1792082 0.1554985 0.1553050 0.1462874 0.1519795 0.1549120
## Cluster 3 0.3055986 0.2701816 0.2435348 0.2265773 0.2177901 0.2110156 0.2111206
## Cluster 4 0.2879711 0.2863285 0.2469567 0.2177906 0.2279819 0.2366029 0.2472383
## Cluster 5 0.4689698 0.4273750 0.4002155 0.3419871 0.3434310 0.2989483 0.2844871
                 11436
                           11437
                                     11438
                                               11439
                                                          11440
                                                                    11441
## Cluster 1 0.1597202 0.1713196 0.1726141 0.2037984 0.2658037 0.3940477 0.5724947
## Cluster 2 0.1405601 0.1442346 0.1920059 0.2968886 0.3454751 0.5166276 0.5123460
## Cluster 3 0.2134426 0.2204496 0.2234099 0.2665631 0.3007787 0.3737234 0.4827617
## Cluster 4 0.2734404 0.2674874 0.3282960 0.4294838 0.5955451 0.8241949 0.8978520
## Cluster 5 0.2975862 0.2986336 0.2698966 0.3190647 0.3415216 0.4229483 0.5084741
                 11443
                           11444
                                     11445
                                               11446
                                                         11447
                                                                    11448
                                                                              11449
## Cluster 1 0.6266684 0.5767308 0.5732865 0.5104416 0.4800676 0.4677493 0.4787613
## Cluster 2 0.4653284 0.3591789 0.3164135 0.2408182 0.2373724 0.2496041 0.2443754
## Cluster 3 0.4871730 0.4821447 0.4879943 0.4548667 0.4540695 0.4607078 0.4563872
## Cluster 4 0.7479386 0.6174657 0.5074874 0.4428592 0.4382563 0.4154838 0.4260758
## Cluster 5 0.4586810 0.4378836 0.4410776 0.4166595 0.3934138 0.3758017 0.3410905
                                     11452
                                               11453
                                                         11454
                 11450
                           11451
                                                                    11455
## Cluster 1 0.4598753 0.4814841 0.4722997 0.4776207 0.4387944 0.4479973 0.4609456
## Cluster 2 0.2626305 0.2818446 0.2674721 0.2751026 0.2636246 0.2030528 0.2258974
## Cluster 3 0.4433404 0.4808241 0.5305730 0.5301149 0.5102468 0.4960582 0.4805390
## Cluster 4 0.3863394 0.4443899 0.4375379 0.4337870 0.4275199 0.4521372 0.4556245
## Cluster 5 0.3440647 0.3629009 0.3908190 0.3780474 0.3704267 0.3635345 0.3667802
                 11457
                           11458
                                     11459
                                               11460
                                                         11461
                                                                    11462
                                                                              11463
## Cluster 1 0.4935782 0.5745981 0.6305146 0.7622653 0.9233700 1.0573289 1.0622918
## Cluster 2 0.2725718 0.3091584 0.3312903 0.3594985 0.5131935 0.5774135 0.7949589
## Cluster 3 0.5565915 0.5982539 0.6990440 0.7539929 0.7506638 0.8317050 0.8596879
## Cluster 4 0.4745993 0.5076065 0.5767256 0.6640217 0.7790939 0.7947870 0.8056209
## Cluster 5 0.3797026 0.3746940 0.4258405 0.4271293 0.4656466 0.5566078 0.6104526
##
                 11464
                           11465
                                     11466
                                               11467
                                                          11468
                                                                    11469
                                                                              11470
## Cluster 1 1.0595292 1.1564125 1.0742427 1.0680729 0.9931127 0.9453448 0.8512653
## Cluster 2 0.9662727 1.0758651 1.0659091 1.0754780 1.0655455 1.0727390 0.9662639
## Cluster 3 0.9275759 1.0045844 1.0167333 0.9928496 0.9514142 0.9409645 0.9187447
## Cluster 4 0.8313430 0.8347906 0.8151227 0.8245596 0.7597581 0.7642238 0.7000181
## Cluster 5 0.7311638 0.7844440 0.7612241 0.7845647 0.8006983 0.8379353 0.8323922
##
                 11471
                           11472
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                                               11474
                                                         11475
                                                                    11476
                                                                              11477
```

```
## Cluster 1 0.7233130 0.6146366 0.5080769 0.3782188 0.2770013 0.2147241 0.1855040
## Cluster 2 0.8233255 0.7022229 0.5629032 0.4562317 0.3130997 0.2478651 0.2132287
## Cluster 3 0.8380383 0.7600865 0.7084440 0.5672681 0.4587943 0.3731035 0.2962454
## Cluster 4 0.6134910 0.5613863 0.4735235 0.3954296 0.3360542 0.3009495 0.2701588
## Cluster 5 0.8520905 0.8111853 0.8760431 0.8363448 0.6633147 0.5714224 0.5003750
                 11478
                                     11480
                                                         11482
                                                                    11483
##
                           11479
                                               11481
## Cluster 1 0.1751737 0.1622175 0.1551963 0.1582599 0.1530424 0.1528939 0.1601870
## Cluster 2 0.1784604 0.1663900 0.1575279 0.1459560 0.1467067 0.1574135 0.1531935
## Cluster 3 0.2610071 0.2237376 0.2099702 0.1996851 0.2007277 0.1997277 0.2036908
## Cluster 4 0.2526209 0.2364477 0.2470830 0.2474440 0.2581408 0.2444982 0.2846462
  Cluster 5 0.4253362 0.3974353 0.3279224 0.3462759 0.2945000 0.2690302 0.2837500
                           11486
                                               11488
                 11485
                                     11487
                                                         11489
                                                                    11490
## Cluster 1 0.1773302 0.1752838 0.2047480 0.2727546 0.4313183 0.5887321 0.5877825
## Cluster 2 0.1621730 0.1835777 0.2782962 0.3574633 0.4719267 0.5486012 0.4633109
## Cluster 3 0.2064468 0.2123106 0.2396454 0.2820709 0.3619645 0.4616270 0.4657773
## Cluster 4 0.2937365 0.3434801 0.4355162 0.6122708 0.8086426 0.9060217 0.7754043
## Cluster 5 0.3091121 0.2446638 0.2974957 0.3188578 0.3572759 0.4738922 0.4907888
##
                 11492
                           11493
                                     11494
                                               11495
                                                         11496
                                                                    11497
                                                                              11498
## Cluster 1 0.5737533 0.5242387 0.5185889 0.5201021 0.4998926 0.4325279 0.4549204
## Cluster 2 0.3464575 0.3261642 0.2765337 0.2597243 0.2674545 0.2377507 0.2160147
## Cluster 3 0.5035291 0.4794071 0.4712355 0.4884567 0.4829489 0.5090057 0.4916610
## Cluster 4 0.5947509 0.5294801 0.4301661 0.4242455 0.4150722 0.4334260 0.3890000
## Cluster 5 0.4608879 0.3885086 0.4000086 0.3961983 0.3440388 0.3364138 0.3626034
                 11499
                           11500
                                     11501
                                               11502
                                                         11503
                                                                    11504
## Cluster 1 0.4632387 0.4623037 0.4843966 0.4516910 0.4501233 0.4480305 0.4758475
## Cluster 2 0.2039238 0.2287947 0.2613226 0.2301026 0.2470850 0.2504692 0.2365337
## Cluster 3 0.5426908 0.5533972 0.5640567 0.5268227 0.5360440 0.5562567 0.5821362
## Cluster 4 0.4207834 0.4394874 0.4125235 0.4262130 0.4432816 0.4140000 0.4305523
## Cluster 5 0.3954914 0.3503578 0.3895905 0.3806810 0.3971983 0.3709138 0.3544267
##
                 11506
                           11507
                                     11508
                                               11509
                                                         11510
                                                                    11511
                                                                              11512
## Cluster 1 0.5255557 0.6065544 0.7351592 0.8978674 1.0607493 1.0575756 1.0567520
## Cluster 2 0.2621789 0.3323812 0.3349267 0.4632610 0.5984545 0.7394194 0.9400528
## Cluster 3 0.6319773 0.7253986 0.7758780 0.7665064 0.8143915 0.8290170 0.8686908
## Cluster 4 0.5151191 0.5929675 0.6253357 0.7257690 0.7058628 0.7634693 0.7751661
## Cluster 5 0.3942328 0.4402026 0.3999612 0.4607759 0.5002500 0.6239914 0.7078664
                                     11515
                                                         11517
                 11513
                           11514
                                               11516
                                                                    11518
                                                                              11519
## Cluster 1 1.1011844 1.0841578 1.0407414 0.9978475 0.9220610 0.8347122 0.7309748
## Cluster 2 1.1056950 1.0848563 1.1695806 1.1234692 1.1011789 1.0687185 0.8987947
## Cluster 3 1.0027078 1.0141901 0.9816426 0.9345007 0.9150752 0.9150979 0.8773291
## Cluster 4 0.8158051 0.8446101 0.8448159 0.7677509 0.7050108 0.6526498 0.6134765
## Cluster 5 0.8391940 0.8206724 0.8578664 0.8578707 0.8699871 0.8632500 0.8511940
                 11520
                           11521
                                     11522
                                               11523
                                                         11524
                                                                    11525
                                                                              11526
## Cluster 1 0.5937454 0.4747122 0.3733966 0.2976353 0.2262109 0.1862427 0.1786658
## Cluster 2 0.7655865 0.5751202 0.4220264 0.3161320 0.2493109 0.2172874 0.1867478
## Cluster 3 0.7572156 0.6690000 0.5893603 0.4520908 0.3757603 0.3037929 0.2518539
## Cluster 4 0.5487365 0.4852744 0.3811011 0.3562671 0.3050722 0.2645812 0.2488484
## Cluster 5 0.8819828 0.8754483 0.8005259 0.6761595 0.5774310 0.5150560 0.4568664
                                               11530
##
                 11527
                           11528
                                     11529
                                                          11531
                                                                    11532
                                                                              11533
## Cluster 1 0.1642454 0.1635292 0.1638289 0.1518064 0.1552162 0.1551101 0.1630756
## Cluster 2 0.1746481 0.1631965 0.1595425 0.1638710 0.1663666 0.1602845 0.1698592
## Cluster 3 0.2359660 0.2111447 0.2021603 0.1989688 0.1989730 0.2040057 0.2113560
## Cluster 4 0.2605812 0.2701625 0.2427329 0.2338664 0.2630794 0.2717437 0.2650866
## Cluster 5 0.4148448 0.3605043 0.3416336 0.3090647 0.3073017 0.2990043 0.3089138
##
                 11534
                           11535
                                     11536
                                               11537
                                                         11538
                                                                    11539
                                                                              11540
```

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## Cluster 1 0.1719920 0.2073143 0.2778568 0.4229337 0.5798342 0.5890491 0.5471512
## Cluster 2 0.2059062 0.2955894 0.3910850 0.4978270 0.5065865 0.4628563 0.3240850
## Cluster 3 0.2222723 0.2450738 0.3047759 0.3792057 0.4435660 0.4902241 0.4801504
## Cluster 4 0.3141733 0.4018809 0.6103213 0.8776931 0.8818809 0.7333357 0.5607545
## Cluster 5 0.2910905 0.3330345 0.3555948 0.4179224 0.4739397 0.5406552 0.4243793
                 11541
                           11542
                                               11544
                                                         11545
##
                                     11543
                                                                    11546
                                                                              11547
## Cluster 1 0.5372467 0.5128024 0.4965955 0.4769244 0.4685371 0.4585252 0.4689721
## Cluster 2 0.2862199 0.2759853 0.2615073 0.2489355 0.2397507 0.2060469 0.1915308
## Cluster 3 0.4581206 0.4976156 0.4644738 0.4552468 0.4452284 0.4577418 0.4826057
## Cluster 4 0.4517690 0.4348267 0.3843827 0.3882599 0.3994982 0.4160217 0.3809097
  Cluster 5 0.3657974 0.3829957 0.3571897 0.3663233 0.3500862 0.3745776 0.3499267
                 11548
                                     11550
                           11549
                                               11551
                                                         11552
                                                                    11553
                                                                              11554
## Cluster 1 0.4709761 0.4850836 0.4522175 0.4523223 0.4634562 0.5231618 0.5445928
## Cluster 2 0.2138710 0.2429501 0.2289795 0.2082346 0.2310440 0.2734223 0.2933284
## Cluster 3 0.4939589 0.5081730 0.4721730 0.4802440 0.4931092 0.5383362 0.6058979
## Cluster 4 0.3819314 0.3833285 0.3777401 0.3974585 0.3925812 0.4675307 0.5111913
## Cluster 5 0.3726638 0.3665517 0.3311983 0.3687457 0.3455647 0.3573448 0.3784483
##
                 11555
                           11556
                                     11557
                                               11558
                                                         11559
                                                                    11560
                                                                              11561
## Cluster 1 0.6009045 0.7275928 0.9194814 0.9710305 1.0067639 0.9976592 1.0612202
## Cluster 2 0.3250674 0.3342082 0.4418416 0.5510440 0.7712786 0.9011232 1.0462757
## Cluster 3 0.6763121 0.7558241 0.7436411 0.8062227 0.8289929 0.8521957 0.9410014
## Cluster 4 0.5690253 0.6871336 0.7925307 0.7727617 0.7593827 0.8184332 0.8458339
## Cluster 5 0.4262974 0.4617198 0.5022026 0.5413276 0.6037974 0.6678966 0.7510905
                 11562
                           11563
                                     11564
                                               11565
                                                          11566
                                                                    11567
## Cluster 1 1.0380544 0.9946114 0.9632984 0.9763621 0.8469748 0.7167599 0.6159058
## Cluster 2 1.1133548 1.0895337 1.1055777 1.0269413 0.9486364 0.8783754 0.7989795
## Cluster 3 0.9434057 0.9672539 0.9609915 0.9255348 0.9193277 0.8237234 0.7729177
## Cluster 4 0.7612852 0.7283971 0.7298845 0.7081444 0.6675415 0.6206498 0.5099458
## Cluster 5 0.7615172 0.8283405 0.8288966 0.8524957 0.8342888 0.8035690 0.7772026
                 11569
                           11570
                                     11571
                                               11572
                                                         11573
                                                                    11574
                                                                              11575
## Cluster 1 0.4967666 0.3847918 0.2724748 0.2216645 0.1876605 0.1827029 0.1665225
## Cluster 2 0.5982287 0.4290528 0.3407419 0.2586481 0.2131730 0.1806393 0.1740117
## Cluster 3 0.6876567 0.5942496 0.4709674 0.3823149 0.3153872 0.2535901 0.2371688
## Cluster 4 0.4356859 0.3726137 0.3245379 0.3001841 0.2792130 0.2551877 0.2449819
## Cluster 5 0.8135216 0.7667284 0.6865517 0.6165560 0.4889138 0.4743664 0.3730603
                                     11578
                                                         11580
                 11576
                           11577
                                               11579
                                                                    11581
                                                                              11582
## Cluster 1 0.1677003 0.1684496 0.1678780 0.1619602 0.1684098 0.1793833 0.1731658
## Cluster 2 0.1719619 0.1594457 0.1630938 0.1672991 0.1597243 0.1644839 0.1848211
## Cluster 3 0.2268894 0.2135163 0.2084454 0.2143546 0.2093887 0.2151106 0.2210652
## Cluster 4 0.2362563 0.2360289 0.2455415 0.2347978 0.2773574 0.2797942 0.3344152
## Cluster 5 0.3201853 0.3249009 0.2851509 0.2456034 0.2743319 0.2858190 0.2763879
                 11583
                           11584
                                     11585
                                               11586
                                                         11587
                                                                    11588
                                                                              11589
## Cluster 1 0.1987520 0.2589509 0.4363528 0.5800743 0.5918408 0.5345385 0.5429297
## Cluster 2 0.2390235 0.3581202 0.4454047 0.5095161 0.5151760 0.3715367 0.3148534
## Cluster 3 0.2540000 0.2959404 0.3807617 0.4281007 0.4675106 0.4850837 0.4314993
## Cluster 4 0.4383791 0.5493863 0.7591047 0.8663971 0.7549675 0.5434801 0.4596498
## Cluster 5 0.2945345 0.3415431 0.3484181 0.3904871 0.4031466 0.4071293 0.3432629
                                               11593
##
                 11590
                           11591
                                     11592
                                                          11594
                                                                    11595
                                                                              11596
## Cluster 1 0.4968581 0.4760225 0.4480942 0.4465345 0.4459881 0.4602281 0.4839881
## Cluster 2 0.2851525 0.2958446 0.2840381 0.2723490 0.2570088 0.2541496 0.2703754
## Cluster 3 0.4678255 0.5040993 0.4802014 0.4963929 0.5068355 0.5478908 0.5320681
## Cluster 4 0.4884079 0.4611408 0.4205271 0.3817184 0.4020758 0.3975162 0.4017112
## Cluster 5 0.3544698 0.3876638 0.3975172 0.3931595 0.3520560 0.3341379 0.3662241
##
                 11597
                           11598
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                                               11600
                                                         11601
                                                                    11602
                                                                              11603
```

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## Cluster 1 0.4830942 0.4219920 0.4635955 0.4561273 0.4766273 0.5493263 0.6005849
## Cluster 2 0.2891290 0.2830235 0.2687830 0.2647214 0.2684927 0.2989384 0.3025953
## Cluster 3 0.5465972 0.5356567 0.5422950 0.5627858 0.5989858 0.6253716 0.6627078
## Cluster 4 0.4110000 0.4102310 0.4539819 0.4392671 0.4823610 0.4866173 0.5809603
## Cluster 5 0.3998103 0.3864828 0.3317845 0.3932500 0.3562284 0.4053707 0.4216034
                 11604
                           11605
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                                                         11608
                                                                    11609
##
                                               11607
## Cluster 1 0.7176167 0.8522573 0.9288077 0.9899549 1.0027480 1.0287772 0.9892149
## Cluster 2 0.3556833 0.4416041 0.5571408 0.7119971 0.9052991 1.0834839 1.1238680
## Cluster 3 0.7573674 0.7292369 0.7895177 0.8346383 0.8558113 0.9315858 0.9021078
## Cluster 4 0.6617690 0.7404440 0.7443177 0.7595090 0.7632635 0.8758484 0.7610144
  Cluster 5 0.4244655 0.4637629 0.5065647 0.6479741 0.6937069 0.7784138 0.7567284
                 11611
                           11612
                                     11613
                                               11614
                                                         11615
                                                                    11616
                                                                              11617
## Cluster 1 0.9442122 0.9165836 0.8706910 0.8142255 0.7275358 0.6697692 0.5677865
## Cluster 2 0.9871496 0.9697830 0.9874428 0.8831584 0.8236129 0.7507595 0.6696540
## Cluster 3 0.9157745 0.9052667 0.9068794 0.8817475 0.8125135 0.7879631 0.7329532
## Cluster 4 0.6859278 0.6872924 0.6438773 0.6621661 0.5713249 0.5223899 0.4579097
## Cluster 5 0.7936379 0.7782500 0.8472198 0.8148491 0.7594828 0.7318147 0.7991207
##
                 11618
                           11619
                                     11620
                                               11621
                                                         11622
                                                                    11623
                                                                              11624
## Cluster 1 0.5099615 0.4011618 0.2989045 0.2387361 0.2012016 0.1800119 0.1691671
## Cluster 2 0.5456070 0.4269238 0.3234604 0.2737771 0.2226657 0.2027977 0.1786246
## Cluster 3 0.6523844 0.5488298 0.4644780 0.3836950 0.3209305 0.2775234 0.2559603
## Cluster 4 0.4482274 0.3977617 0.3244765 0.3168664 0.2928087 0.2651625 0.2578159
## Cluster 5 0.7402026 0.6611983 0.5893836 0.5306724 0.4556207 0.3847198 0.3593922
                 11625
                           11626
                                     11627
                                               11628
                                                          11629
                                                                    11630
## Cluster 1 0.1634602 0.1554310 0.1587666 0.1578926 0.1638833 0.1646366 0.1734310
## Cluster 2 0.1749179 0.1651613 0.1669589 0.1573431 0.1636540 0.1721848 0.2058856
## Cluster 3 0.2338738 0.2195660 0.2140383 0.2123901 0.2138525 0.2174865 0.2403078
## Cluster 4 0.2405415 0.2823105 0.2742671 0.2683574 0.2748159 0.3500289 0.3747148
## Cluster 5 0.3384914 0.3161422 0.2986164 0.2975216 0.2776940 0.2524009 0.2601509
##
                 11632
                           11633
                                     11634
                                               11635
                                                         11636
                                                                    11637
                                                                              11638
## Cluster 1 0.1979894 0.2638899 0.3407878 0.4263276 0.5446989 0.6145066 0.6580531
## Cluster 2 0.2301906 0.2957009 0.3007947 0.3750176 0.4353812 0.4782669 0.4252434
## Cluster 3 0.2610468 0.2776028 0.2994894 0.3569603 0.4091518 0.4510184 0.5376326
## Cluster 4 0.4160614 0.5082383 0.5604079 0.6094838 0.6072094 0.6343502 0.6542996
## Cluster 5 0.2646078 0.2965086 0.3417629 0.3791466 0.4368707 0.3894095 0.4289483
                                               11642
                 11639
                           11640
                                     11641
                                                         11643
                                                                    11644
## Cluster 1 0.6589125 0.7170318 0.6836538 0.6923369 0.6657745 0.6825424 0.7339085
## Cluster 2 0.4514194 0.4619619 0.4344340 0.4168446 0.4526012 0.5047390 0.4476657
## Cluster 3 0.5915050 0.6459986 0.6722865 0.6601135 0.6649702 0.7328865 0.7379433
## Cluster 4 0.5528448 0.6176498 0.6396823 0.5604043 0.6058773 0.6670542 0.6479783
## Cluster 5 0.4314784 0.4282026 0.4443534 0.4500819 0.4786336 0.4733664 0.5069612
                 11646
                           11647
                                     11648
                                               11649
                                                         11650
                                                                    11651
                                                                              11652
## Cluster 1 0.7003488 0.6688554 0.6379668 0.5903634 0.6449721 0.6625000 0.8201340
## Cluster 2 0.5042551 0.5148768 0.4426540 0.4688416 0.4408710 0.5099355 0.4952991
## Cluster 3 0.7358922 0.7604298 0.6796851 0.6634681 0.6742241 0.7191220 0.7397333
## Cluster 4 0.5740325 0.5768953 0.6103863 0.5552058 0.6015343 0.6143538 0.6239097
## Cluster 5 0.5625776 0.5932586 0.4640216 0.4625086 0.4740647 0.4583491 0.5579612
                                               11656
##
                 11653
                           11654
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                                                          11657
                                                                    11658
                                                                              11659
## Cluster 1 0.8282931 0.9850491 1.0376273 1.0225584 1.0835146 0.9647268 0.9266074
## Cluster 2 0.5599941 0.6620323 0.7975543 0.9314135 0.9403343 0.9141613 0.9009677
## Cluster 3 0.8090950 0.8556213 0.8362567 0.9109050 0.9733702 0.9741319 0.9974028
## Cluster 4 0.6932852 0.7625812 0.7923827 0.8805451 0.8081552 0.7595848 0.6796245
## Cluster 5 0.6060172 0.6055043 0.6807328 0.7601724 0.7584181 0.8218534 0.8072112
##
                 11660
                           11661
                                     11662
                                               11663
                                                         11664
                                                                    11665
                                                                              11666
```

```
## Cluster 1 0.8873103 0.8079019 0.7589456 0.6850796 0.6079775 0.5225756 0.4531499
## Cluster 2 0.8854663 0.8476012 0.7057742 0.6807361 0.6570938 0.5714663 0.4946276
## Cluster 3 0.9377603 0.8931376 0.8716879 0.7988298 0.7165858 0.6657177 0.6070199
## Cluster 4 0.6265415 0.6370325 0.5885199 0.5416282 0.5173177 0.4541083 0.4166354
## Cluster 5 0.8225819 0.8184009 0.8572328 0.8814095 0.7660345 0.7283922 0.6996853
                 11667
                           11668
                                     11669
                                                          11671
                                               11670
                                                                    11672
## Cluster 1 0.3609761 0.2891061 0.2377613 0.2044894 0.1817401 0.1788369 0.1684310
## Cluster 2 0.4063109 0.3486334 0.2708182 0.2263343 0.2054428 0.1909795 0.1771144
## Cluster 3 0.5468851 0.4516496 0.3844979 0.3294695 0.2934851 0.2682965 0.2420085
## Cluster 4 0.3718845 0.3393357 0.3238520 0.2856787 0.2836209 0.2843177 0.2726065
  Cluster 5 0.6637198 0.5873362 0.5076293 0.4882586 0.4268190 0.3649655 0.3480259
                 11674
                           11675
                                     11676
                                               11677
                                                          11678
                                                                    11679
                                                                              11680
## Cluster 1 0.1600451 0.1577918 0.1583846 0.1583674 0.1560398 0.1643859 0.2011154
## Cluster 2 0.1722375 0.1683079 0.1567830 0.1693050 0.1723196 0.1873754 0.2203138
## Cluster 3 0.2349773 0.2255929 0.2199050 0.2189362 0.2153631 0.2307248 0.2301021
## Cluster 4 0.2692238 0.2488881 0.2609206 0.2828700 0.3093574 0.3164946 0.3706354
## Cluster 5 0.3216724 0.2934569 0.2981509 0.3061983 0.2784052 0.2865647 0.2938147
##
                 11681
                           11682
                                     11683
                                               11684
                                                          11685
                                                                    11686
                                                                              11687
## Cluster 1 0.2496326 0.3043501 0.3672851 0.5086645 0.6034377 0.6814204 0.7808634
## Cluster 2 0.2328915 0.2604956 0.2955015 0.3642053 0.3845484 0.4461730 0.4998270
## Cluster 3 0.2492213 0.2623305 0.3248794 0.4050667 0.4880128 0.5652723 0.6432227
## Cluster 4 0.4075921 0.4763574 0.5166209 0.6213610 0.6513538 0.6527040 0.6918664
## Cluster 5 0.2855000 0.2820172 0.3428147 0.3658103 0.3835388 0.4289784 0.5621422
                 11688
                           11689
                                     11690
                                               11691
                                                          11692
                                                                    11693
## Cluster 1 0.7444178 0.7659987 0.7589920 0.7445809 0.8135318 0.7864164 0.7992997
## Cluster 2 0.5273578 0.5756657 0.5698358 0.5682522 0.6433988 0.6081378 0.5721848
## Cluster 3 0.7276312 0.7427277 0.7241631 0.7945546 0.8404128 0.8098567 0.7708652
## Cluster 4 0.8058087 0.6757942 0.6124585 0.6136895 0.5813827 0.7027617 0.6622852
## Cluster 5 0.4920388 0.4356897 0.4801983 0.5125129 0.5226034 0.5214009 0.5034569
##
                 11695
                           11696
                                     11697
                                               11698
                                                          11699
                                                                    11700
                                                                              11701
## Cluster 1 0.6972759 0.6681618 0.6169761 0.5862878 0.5987891 0.6093408 0.7139416
## Cluster 2 0.5159384 0.5197683 0.4831965 0.4508886 0.4490000 0.5122933 0.5895543
## Cluster 3 0.7354099 0.6908270 0.6817106 0.7270270 0.6993915 0.6539149 0.6247475
## Cluster 4 0.5887978 0.6515307 0.6142960 0.5512996 0.5790144 0.5783321 0.6546534
  Cluster 5 0.5585948 0.4409828 0.4440862 0.4506121 0.4493276 0.4448578 0.4838017
                 11702
                           11703
                                               11705
                                                          11706
                                     11704
                                                                    11707
                                                                              11708
## Cluster 1 0.7899721 0.8236061 0.8653196 0.9667493 0.9467719 0.9106008 0.8293634
## Cluster 2 0.5995455 0.7121965 0.9333548 1.0474047 1.0618680 1.0333372 0.9819677
## Cluster 3 0.6688624 0.7377915 0.7939078 0.8702525 0.8764199 0.9259830 0.8910610
## Cluster 4 0.6353610 0.6516065 0.6802744 0.8223177 0.7475776 0.6745957 0.7013935
## Cluster 5 0.5157457 0.5292112 0.6384181 0.7093621 0.8115172 0.8567457 0.7961983
                 11709
                           11710
                                     11711
                                               11712
                                                          11713
                                                                    11714
                                                                              11715
## Cluster 1 0.8260172 0.7630186 0.6645146 0.5677706 0.4546101 0.3457918 0.2700796
## Cluster 2 0.9368944 0.9305865 0.8294692 0.6520733 0.5213431 0.4039062 0.3134985
## Cluster 3 0.8895574 0.8640638 0.8131660 0.7387972 0.6524369 0.5402582 0.4422950
## Cluster 4 0.6544260 0.6422960 0.5992744 0.5027076 0.4297292 0.3803935 0.3321300
## Cluster 5 0.8848879 0.8993147 0.8351422 0.8048060 0.8156207 0.8185517 0.6955991
                                     11718
                                                          11720
##
                 11716
                           11717
                                               11719
                                                                    11721
                                                                              11722
## Cluster 1 0.2247812 0.1875345 0.1721154 0.1677905 0.1602613 0.1555292 0.1531645
## Cluster 2 0.2478416 0.2113167 0.1798211 0.1677537 0.1650381 0.1418358 0.1427977
## Cluster 3 0.3928241 0.3287972 0.2647191 0.2334369 0.2141504 0.2139816 0.1996071
## Cluster 4 0.2772455 0.2666426 0.2566679 0.2450903 0.2302238 0.2530975 0.2669206
## Cluster 5 0.5721897 0.5490259 0.4533922 0.3694957 0.3218017 0.3449784 0.3019440
##
                 11723
                           11724
                                     11725
                                               11726
                                                          11727
                                                                    11728
                                                                              11729
```

```
## Cluster 1 0.1571127 0.1709788 0.1574005 0.1649430 0.1979721 0.2613793 0.3752029
## Cluster 2 0.1445513 0.1485161 0.1564985 0.1893167 0.2486246 0.3119971 0.4536129
## Cluster 3 0.1972511 0.1956468 0.2092468 0.2205348 0.2540128 0.2751220 0.3632099
## Cluster 4 0.2504260 0.2638412 0.2832744 0.3557617 0.4104982 0.5631516 0.7749061
## Cluster 5 0.2534095 0.2860948 0.3056940 0.2696897 0.3140043 0.3200474 0.3788621
                 11730
                                     11732
                                                          11734
##
                           11731
                                               11733
                                                                    11735
                                                                              11736
## Cluster 1 0.5612613 0.5834960 0.5363196 0.5070080 0.4779098 0.5075942 0.4493820
## Cluster 2 0.4514106 0.4084751 0.3326070 0.2842962 0.2640674 0.2571349 0.2559531
## Cluster 3 0.4257163 0.4710567 0.4499603 0.4373957 0.4633035 0.4594638 0.4835475
## Cluster 4 0.8375307 0.7346715 0.5941877 0.5018231 0.4764224 0.4747617 0.4387942
  Cluster 5 0.4630603 0.4572371 0.3873060 0.4136897 0.3562759 0.3754440 0.3419267
                                                          11741
                           11738
                                     11739
                 11737
                                               11740
                                                                    11742
                                                                              11743
## Cluster 1 0.4542255 0.4171393 0.4585146 0.4776472 0.4721817 0.4549602 0.4504191
## Cluster 2 0.2530352 0.2388006 0.2294897 0.2550147 0.3208944 0.3058182 0.2693431
## Cluster 3 0.4760454 0.4738170 0.4596950 0.5179262 0.5323844 0.5060894 0.4960128
## Cluster 4 0.3954585 0.3720108 0.3755812 0.4128267 0.4491877 0.4553502 0.4601336
## Cluster 5 0.3342284 0.3251121 0.3282284 0.3670302 0.4089569 0.3387112 0.3058707
##
                 11744
                           11745
                                     11746
                                               11747
                                                          11748
                                                                    11749
                                                                              11750
## Cluster 1 0.4580424 0.4984536 0.5640968 0.6186538 0.7241432 0.8866512 1.0055637
## Cluster 2 0.3085308 0.2860352 0.2932962 0.3179032 0.3261525 0.4092170 0.6022317
## Cluster 3 0.5351262 0.5552610 0.6649574 0.7245163 0.7722128 0.7821745 0.8344681
## Cluster 4 0.4299531 0.4496065 0.5614477 0.5965379 0.6797148 0.8067329 0.7754585
## Cluster 5 0.2888362 0.3551207 0.3655000 0.4108750 0.4223664 0.4414871 0.5142500
                 11751
                           11752
                                     11753
                                               11754
                                                          11755
                                                                    11756
## Cluster 1 1.0658448 1.0301671 1.0599602 1.0494562 0.9950027 0.9747812 0.9469231
## Cluster 2 0.8198446 0.9372581 1.0803109 1.1146921 1.1185132 1.0578387 1.0429677
## Cluster 3 0.8298553 0.8844057 0.9650823 1.0027986 0.9616738 0.9141532 0.9146411
## Cluster 4 0.7369495 0.7640000 0.8861841 0.7826065 0.7277545 0.7169819 0.7107653
## Cluster 5 0.5733922 0.7026121 0.7960216 0.7870345 0.7800862 0.7746724 0.8212371
##
                 11758
                           11759
                                     11760
                                               11761
                                                          11762
                                                                    11763
                                                                              11764
## Cluster 1 0.8523329 0.7298634 0.5933249 0.4964576 0.3842692 0.2851154 0.2247042
## Cluster 2 0.9712229 0.8886657 0.7246774 0.6206217 0.4360235 0.3187801 0.2469120
## Cluster 3 0.8760184 0.8182241 0.7673504 0.7433461 0.5847277 0.4505064 0.3651206
## Cluster 4 0.6659567 0.5933718 0.5321625 0.4644007 0.3963249 0.3129639 0.3163321
## Cluster 5 0.8760172 0.9406164 0.8593190 0.8942371 0.7768491 0.7237198 0.5413017
                                                          11769
                                     11767
                                               11768
                 11765
                           11766
                                                                    11770
                                                                              11771
## Cluster 1 0.1895796 0.1717931 0.1591512 0.1523103 0.1502401 0.1486194 0.1519788
## Cluster 2 0.2033284 0.1680909 0.1493431 0.1488211 0.1444751 0.1465513 0.1497625
## Cluster 3 0.3053858 0.2605532 0.2259092 0.2116823 0.2042496 0.2002099 0.1892128
## Cluster 4 0.2673032 0.2507942 0.2645379 0.2504477 0.2356065 0.2390181 0.2342671
## Cluster 5 0.4985172 0.4318190 0.3529828 0.3329957 0.3298578 0.2914353 0.2694009
                 11772
                           11773
                                     11774
                                               11775
                                                          11776
                                                                              11778
                                                                    11777
## Cluster 1 0.1529297 0.1696419 0.1741870 0.2044602 0.2656074 0.4177029 0.5678064
## Cluster 2 0.1526129 0.1531026 0.1865513 0.2407918 0.3469355 0.4953607 0.4574721
## Cluster 3 0.1960837 0.2006624 0.2189645 0.2626213 0.2660879 0.3518681 0.4130128
## Cluster 4 0.2566570 0.2891480 0.3441083 0.3924657 0.5556931 0.7462996 0.7881155
## Cluster 5 0.2937974 0.2701379 0.2623621 0.3133060 0.3351121 0.3822543 0.4196034
                           11780
##
                 11779
                                     11781
                                               11782
                                                          11783
                                                                    11784
                                                                              11785
## Cluster 1 0.5812440 0.5279775 0.5164655 0.5325557 0.5071525 0.4993249 0.4961141
## Cluster 2 0.4652610 0.3554311 0.2963695 0.2763724 0.2536364 0.2411935 0.2405455
## Cluster 3 0.4632411 0.4579489 0.4529390 0.4649801 0.4660312 0.4853759 0.4802695
## Cluster 4 0.7641011 0.6183069 0.4346426 0.4294224 0.3982383 0.3875199 0.4121227
## Cluster 5 0.4876638 0.4335776 0.4369957 0.3815259 0.3420647 0.3560690 0.3491121
##
                 11786
                           11787
                                     11788
                                               11789
                                                          11790
                                                                    11791
                                                                              11792
```

```
## Cluster 1 0.5120491 0.5276008 0.4882560 0.5243263 0.4765637 0.4940663 0.5003793
## Cluster 2 0.2415073 0.2205924 0.2701994 0.3034839 0.2763959 0.2627390 0.2619355
## Cluster 3 0.4906879 0.5108142 0.5376298 0.5517121 0.5273319 0.5111376 0.5174950
## Cluster 4 0.3971516 0.3842419 0.4330975 0.4593755 0.4212094 0.4618051 0.4676931
## Cluster 5 0.3154784 0.3172026 0.3462500 0.4012155 0.3966595 0.3630345 0.3485603
                 11793
                                               11796
                                                         11797
                                                                    11798
##
                           11794
                                     11795
                                                                              11799
## Cluster 1 0.5493753 0.5465159 0.6282692 0.7820146 0.8906764 1.0340663 1.0736658
## Cluster 2 0.3086598 0.3184047 0.3265220 0.3730323 0.4967654 0.5775044 0.7639413
## Cluster 3 0.6324000 0.6714440 0.7296525 0.7860440 0.7516553 0.8130468 0.8707262
## Cluster 4 0.4832996 0.5266354 0.6239025 0.7083321 0.7658123 0.7444152 0.8271444
  Cluster 5 0.3815000 0.3961078 0.5227802 0.5795000 0.5717629 0.6286422 0.6737500
                           11801
                                     11802
                 11800
                                               11803
                                                         11804
                                                                    11805
                                                                              11806
## Cluster 1 0.9760623 1.0032268 0.9892573 0.9461194 0.8855610 0.8753859 0.7982626
## Cluster 2 0.9561408 1.0704370 1.0703959 1.0180557 0.9930352 0.9795836 0.8867155
## Cluster 3 0.8958596 0.9410851 0.9126553 0.9107021 0.9132894 0.9373844 0.8435206
## Cluster 4 0.7961191 0.7438809 0.7453718 0.6868773 0.7124116 0.6717040 0.6398845
## Cluster 5 0.8005647 0.7939569 0.8186078 0.8279138 0.8446638 0.8213750 0.8255086
##
                 11807
                           11808
                                     11809
                                               11810
                                                         11811
                                                                    11812
                                                                              11813
## Cluster 1 0.7051684 0.6405358 0.5445570 0.4351897 0.3372321 0.2657374 0.2201207
## Cluster 2 0.8146070 0.7824868 0.6722933 0.5294282 0.4190557 0.3390352 0.2718651
## Cluster 3 0.8054071 0.7576582 0.7172965 0.6192071 0.5092851 0.4311489 0.3519872
## Cluster 4 0.5969278 0.5608773 0.5006859 0.4544693 0.3778628 0.3225090 0.2810794
## Cluster 5 0.8418621 0.8094914 0.8462241 0.7890388 0.6874440 0.5660388 0.5410733
                 11814
                           11815
                                     11816
                                               11817
                                                         11818
                                                                    11819
## Cluster 1 0.1901764 0.1708395 0.1636844 0.1626180 0.1570106 0.1542454 0.1636313
## Cluster 2 0.2189355 0.1869326 0.1706246 0.1627654 0.1653695 0.1619941 0.1514809
## Cluster 3 0.3064028 0.2712255 0.2436397 0.2199660 0.2089702 0.2002128 0.2114837
## Cluster 4 0.2459061 0.2476787 0.2597220 0.2655415 0.2512455 0.2393357 0.2585054
## Cluster 5 0.4272198 0.3990302 0.3530216 0.3489267 0.3097414 0.3124569 0.3006638
##
                 11821
                           11822
                                     11823
                                               11824
                                                         11825
                                                                    11826
                                                                              11827
## Cluster 1 0.1537347 0.1601419 0.1706101 0.1959496 0.2313859 0.2988806 0.3903674
## Cluster 2 0.1542727 0.1506041 0.1801378 0.2059120 0.2363959 0.2814780 0.3006305
## Cluster 3 0.2032440 0.2035660 0.2193064 0.2362652 0.2468369 0.2861149 0.3235858
## Cluster 4 0.2744440 0.2990686 0.3126931 0.3773213 0.4618520 0.5245704 0.5932924
## Cluster 5 0.2952069 0.2604914 0.2803750 0.2986681 0.3271810 0.3229397 0.3563793
                                                         11832
                           11829
                 11828
                                     11830
                                               11831
                                                                    11833
                                                                              11834
## Cluster 1 0.5030517 0.6338515 0.7453966 0.7782586 0.8384324 0.8176141 0.8363382
## Cluster 2 0.3496188 0.4240088 0.4602610 0.5276628 0.6027185 0.5980997 0.5786246
## Cluster 3 0.3854638 0.4824766 0.5356879 0.6241872 0.6633957 0.6816213 0.7365830
## Cluster 4 0.5604368 0.6781877 0.6723032 0.6653177 0.5934188 0.5939458 0.5888592
## Cluster 5 0.3915948 0.4343319 0.4635474 0.4920690 0.5458578 0.5282328 0.5181853
                 11835
                           11836
                                     11837
                                               11838
                                                         11839
                                                                    11840
                                                                              11841
## Cluster 1 0.7683634 0.7412878 0.7202958 0.6530013 0.5801074 0.5104337 0.5313316
## Cluster 2 0.5834633 0.6324399 0.6322845 0.5553314 0.5466422 0.4739472 0.4247214
## Cluster 3 0.7540383 0.7300823 0.7709617 0.7103404 0.6798326 0.6167716 0.5985489
## Cluster 4 0.6506895 0.6024296 0.6040361 0.6074368 0.5158267 0.5176895 0.5176570
## Cluster 5 0.6151422 0.6276250 0.5981121 0.5371422 0.5150000 0.5002284 0.4757241
##
                 11842
                           11843
                                     11844
                                               11845
                                                          11846
                                                                    11847
                                                                              11848
## Cluster 1 0.5399682 0.5854111 0.6187401 0.7186340 0.8279907 0.8465199 0.8811950
## Cluster 2 0.4510323 0.4556921 0.5303900 0.6311642 0.6617977 0.7294868 0.8416041
## Cluster 3 0.6056752 0.6181901 0.6529135 0.6584879 0.7025319 0.7331064 0.7603433
## Cluster 4 0.5654116 0.5679061 0.5439025 0.6409025 0.6308592 0.7125776 0.7150758
## Cluster 5 0.4768621 0.5384871 0.4727026 0.4762888 0.5630603 0.6264741 0.6361767
##
                 11849
                           11850
                                     11851
                                               11852
                                                         11853
                                                                    11854
                                                                              11855
```

```
## Cluster 1 0.9281061 0.9384655 0.8636711 0.8593966 0.7812706 0.7544111 0.6276844
## Cluster 2 0.9780381 0.9369472 0.9549032 0.9662639 0.9370733 0.8447918 0.7529062
## Cluster 3 0.8361688 0.8544567 0.8483121 0.8366440 0.7998170 0.7715007 0.7092383
## Cluster 4 0.7238736 0.7081625 0.7157942 0.6815379 0.6450975 0.5909061 0.5533357
## Cluster 5 0.6895216 0.7778276 0.7605431 0.7555431 0.8237026 0.8718793 0.8524052
                 11856
                                     11858
                                                         11860
                                                                    11861
##
                           11857
                                               11859
                                                                              11862
## Cluster 1 0.5369814 0.4508753 0.3722533 0.2846592 0.2242241 0.1986552 0.1742361
## Cluster 2 0.6677273 0.5547067 0.4222229 0.3406100 0.2810029 0.2158827 0.1791026
## Cluster 3 0.6365887 0.5698028 0.5019390 0.4021674 0.3424369 0.2971532 0.2550851
## Cluster 4 0.4539170 0.3884477 0.3353213 0.3182708 0.2731047 0.2649675 0.2790108
  Cluster 5 0.8707155 0.8166897 0.7796853 0.7046853 0.5860345 0.4661940 0.4084353
                 11863
                           11864
                                     11865
                                               11866
                                                         11867
                                                                    11868
                                                                              11869
## Cluster 1 0.1620199 0.1605981 0.1556963 0.1520690 0.1513820 0.1568342 0.1673170
## Cluster 2 0.1556716 0.1561466 0.1467771 0.1531789 0.1558416 0.1478827 0.1539296
## Cluster 3 0.2291730 0.2179660 0.2059574 0.2040979 0.1965489 0.2057121 0.2030170
## Cluster 4 0.2558448 0.2617653 0.2596751 0.2375451 0.2598231 0.2759025 0.2724079
## Cluster 5 0.3653836 0.3165991 0.3350259 0.2911422 0.2507543 0.2936767 0.2855690
##
                 11870
                           11871
                                     11872
                                               11873
                                                         11874
                                                                    11875
                                                                              11876
## Cluster 1 0.1773833 0.1849920 0.2616565 0.3919801 0.5233767 0.5360584 0.4980225
## Cluster 2 0.1825660 0.2442111 0.3196628 0.3811789 0.4632434 0.4521760 0.3315660
## Cluster 3 0.2196823 0.2421262 0.2720922 0.3628908 0.4123546 0.4400298 0.4531702
## Cluster 4 0.3139314 0.4017148 0.5647148 0.7587329 0.8189783 0.6546137 0.5232744
## Cluster 5 0.2650474 0.3119612 0.3099353 0.3503793 0.4154612 0.4330302 0.4323491
                 11877
                           11878
                                     11879
                                               11880
                                                         11881
                                                                    11882
## Cluster 1 0.5020000 0.5099403 0.4444960 0.4780517 0.4597109 0.4263156 0.4496870
## Cluster 2 0.2609326 0.2588211 0.2609208 0.2790147 0.2474545 0.2614604 0.2414370
## Cluster 3 0.4381972 0.4371589 0.4250057 0.4608326 0.4649191 0.4383801 0.4554908
## Cluster 4 0.4619206 0.4446859 0.4782852 0.4537834 0.4015379 0.4466570 0.4589603
## Cluster 5 0.3813621 0.3574741 0.3886595 0.3759698 0.3867888 0.3560129 0.3797716
##
                 11884
                           11885
                                     11886
                                               11887
                                                         11888
                                                                    11889
                                                                              11890
## Cluster 1 0.4921605 0.5176764 0.4903011 0.4818806 0.4964788 0.5185650 0.5806989
## Cluster 2 0.2255191 0.2670469 0.2634985 0.2656393 0.2804106 0.2714135 0.2954516
## Cluster 3 0.5172411 0.5444326 0.5350057 0.5303532 0.5486965 0.6041149 0.6607645
## Cluster 4 0.5247256 0.4811516 0.4713249 0.4930578 0.4948700 0.5191047 0.5559170
## Cluster 5 0.4379569 0.4094224 0.3933276 0.4057586 0.4083103 0.3990259 0.4163017
                           11892
                                                         11895
                 11891
                                     11893
                                               11894
                                                                    11896
## Cluster 1 0.6478515 0.7281950 0.8722082 0.9395146 0.9555597 0.9032414 1.0031605
## Cluster 2 0.3465513 0.3690968 0.4838299 0.5665396 0.7358006 0.9052669 1.0288856
## Cluster 3 0.6541943 0.7983972 0.7764908 0.8109816 0.7781319 0.8385915 0.8838184
## Cluster 4 0.6216715 0.7109639 0.7149458 0.7248267 0.7623610 0.7513394 0.8004693
## Cluster 5 0.3860690 0.4686422 0.5062629 0.5224440 0.5881078 0.5990000 0.7033664
                 11898
                           11899
                                     11900
                                               11901
                                                         11902
                                                                    11903
                                                                              11904
## Cluster 1 0.9856485 0.9562135 0.9604947 0.8891671 0.7926432 0.6979602 0.5866751
## Cluster 2 1.0282786 1.0130968 0.9363138 0.9740176 0.8976452 0.8346246 0.7103900
## Cluster 3 0.9101589 0.9219163 0.9071333 0.8940993 0.8395262 0.8114596 0.7120411
## Cluster 4 0.7549892 0.7161227 0.7032744 0.6849278 0.6470181 0.6055487 0.5107726
## Cluster 5 0.7608534 0.7927802 0.7866293 0.8193448 0.8326164 0.7711897 0.7912457
                           11906
                                     11907
                                                          11909
##
                 11905
                                               11908
                                                                    11910
                                                                              11911
## Cluster 1 0.5050875 0.3824642 0.2877202 0.2314615 0.2007374 0.1762958 0.1589496
## Cluster 2 0.5963050 0.4576569 0.3367302 0.2804633 0.2202639 0.2004780 0.1657038
## Cluster 3 0.6893390 0.5927631 0.4744142 0.3891390 0.2985021 0.2698482 0.2261730
## Cluster 4 0.4396931 0.3707004 0.3155271 0.2864188 0.2832708 0.2670036 0.2555271
## Cluster 5 0.8086207 0.7699353 0.6317672 0.5628750 0.4564957 0.4196034 0.3545733
##
                 11912
                           11913
                                     11914
                                               11915
                                                         11916
                                                                    11917
                                                                              11918
```

```
## Cluster 1 0.1566565 0.1529284 0.1514297 0.1637878 0.1627149 0.1612732 0.1682255
## Cluster 2 0.1572845 0.1479853 0.1505191 0.1614370 0.1506305 0.1633343 0.1893402
## Cluster 3 0.2214837 0.2076000 0.1926851 0.1966936 0.2021234 0.2147177 0.2052879
## Cluster 4 0.2517365 0.2413610 0.2279567 0.2503285 0.2632744 0.2887401 0.3377473
## Cluster 5 0.3019353 0.2999569 0.2693621 0.2584784 0.2532629 0.2677457 0.2439009
                 11919
                           11920
                                     11921
                                               11922
                                                         11923
                                                                    11924
##
## Cluster 1 0.1832851 0.2533528 0.4093302 0.5724111 0.5621101 0.5172706 0.5602361
## Cluster 2 0.2419120 0.3351320 0.4319883 0.4341056 0.4492815 0.3519795 0.3015513
## Cluster 3 0.2498170 0.2730014 0.3499702 0.3834908 0.4483262 0.4828411 0.4395660
## Cluster 4 0.4296101 0.5652671 0.8027870 0.7901949 0.6895451 0.5707040 0.4603177
  Cluster 5 0.2986509 0.3112241 0.3404224 0.3916422 0.4457241 0.3861767 0.3509224
                           11927
                 11926
                                     11928
                                               11929
                                                         11930
                                                                    11931
## Cluster 1 0.5560902 0.5209960 0.4646114 0.4551326 0.4204854 0.4638183 0.4643714
## Cluster 2 0.2854164 0.2392287 0.2331994 0.2339795 0.2239589 0.2544839 0.2766305
## Cluster 3 0.4490539 0.4717319 0.4597234 0.4514156 0.4749716 0.5216638 0.5422270
## Cluster 4 0.4717978 0.4609495 0.4299531 0.4002491 0.4058231 0.3546751 0.3843899
## Cluster 5 0.3258750 0.3300862 0.3401034 0.3565647 0.3224569 0.3416379 0.3585345
##
                 11933
                           11934
                                     11935
                                               11936
                                                         11937
                                                                    11938
                                                                              11939
## Cluster 1 0.4850570 0.4685159 0.4460159 0.4433541 0.5028329 0.5142639 0.5944788
## Cluster 2 0.2551320 0.2588534 0.2468123 0.2769208 0.2807801 0.2878768 0.3147507
## Cluster 3 0.5692057 0.5069745 0.5262780 0.5308085 0.5593603 0.6337617 0.6753489
## Cluster 4 0.4023105 0.4258845 0.4470469 0.4858267 0.4702347 0.5769025 0.6287076
## Cluster 5 0.3746940 0.3667198 0.3592845 0.3679353 0.4202155 0.4277759 0.4588017
                 11940
                           11941
                                     11942
                                               11943
                                                         11944
                                                                    11945
## Cluster 1 0.7301870 0.8085371 0.9908329 1.0321592 1.0023515 1.0249390 1.0590557
## Cluster 2 0.3570000 0.4552493 0.5537625 0.7397273 0.8803548 0.9816540 1.0261906
## Cluster 3 0.7487759 0.7665050 0.7994610 0.8416936 0.8876369 0.9376454 0.9160128
## Cluster 4 0.6933755 0.7185884 0.7122491 0.7414874 0.7960181 0.8766643 0.7732780
## Cluster 5 0.4563276 0.4964871 0.5777241 0.6180905 0.6768448 0.7919784 0.8201810
##
                 11947
                           11948
                                     11949
                                               11950
                                                         11951
                                                                    11952
                                                                              11953
## Cluster 1 0.9670133 0.8754058 0.8698568 0.7850318 0.7017480 0.6230027 0.5476008
## Cluster 2 1.0301173 0.9434370 0.9847742 0.9100997 0.8063314 0.7610821 0.6481496
## Cluster 3 0.9238610 0.8594922 0.8787702 0.8360794 0.8117489 0.7221220 0.7015773
## Cluster 4 0.7222455 0.7225560 0.6904332 0.6457329 0.5778520 0.5610686 0.4946606
## Cluster 5 0.8180216 0.7981940 0.8221509 0.8351810 0.8295603 0.7580043 0.8417241
                                                         11958
                           11955
                                     11956
                 11954
                                               11957
                                                                    11959
## Cluster 1 0.4699615 0.3535133 0.2798408 0.2452851 0.1992122 0.1852387 0.1670053
## Cluster 2 0.5369413 0.4279531 0.3049648 0.2455806 0.2005543 0.1815249 0.1726979
## Cluster 3 0.6279362 0.5468312 0.4391277 0.3484922 0.3067716 0.2624922 0.2426454
## Cluster 4 0.4757726 0.4247220 0.3553141 0.3318773 0.2857184 0.2792310 0.2733899
## Cluster 5 0.8803319 0.7426638 0.6272845 0.5737974 0.4931509 0.3842888 0.3188491
                 11961
                           11962
                                     11963
                                               11964
                                                         11965
                                                                    11966
                                                                              11967
## Cluster 1 0.1615491 0.1558196 0.1565650 0.1722029 0.1608873 0.1619125 0.1789708
## Cluster 2 0.1656510 0.1569443 0.1577566 0.1649267 0.1622053 0.1789560 0.1938622
## Cluster 3 0.2229362 0.2024043 0.2007106 0.2057418 0.2072879 0.2083362 0.2232227
## Cluster 4 0.2815343 0.2714729 0.2543069 0.2582563 0.2803827 0.3192058 0.3337942
## Cluster 5 0.3354181 0.2928190 0.2786379 0.2829138 0.2756724 0.2450431 0.2786250
                           11969
##
                 11968
                                     11970
                                               11971
                                                         11972
                                                                    11973
                                                                              11974
## Cluster 1 0.2039549 0.2705477 0.3505584 0.4009191 0.5281406 0.6451645 0.6792321
## Cluster 2 0.2106070 0.2590205 0.2831320 0.3680733 0.3709677 0.4823255 0.4849941
## Cluster 3 0.2276936 0.2653390 0.3012681 0.3392511 0.3992426 0.4623475 0.5174199
## Cluster 4 0.3612274 0.5051913 0.5923935 0.5701588 0.6209458 0.6502058 0.6427040
## Cluster 5 0.2961810 0.3115647 0.3269181 0.3601422 0.4175517 0.4712284 0.4991552
##
                 11975
                           11976
                                     11977
                                               11978
                                                         11979
                                                                    11980
```

```
## Cluster 1 0.6836247 0.7004032 0.6894629 0.6888912 0.6813488 0.6967162 0.6785809
## Cluster 2 0.4806481 0.4421114 0.4503754 0.4932493 0.4287302 0.4746921 0.4727507
## Cluster 3 0.5953163 0.6220284 0.6688894 0.6194553 0.6556255 0.7365248 0.7357007
## Cluster 4 0.6599350 0.6129097 0.6409603 0.5711119 0.6344332 0.5944296 0.5037292
## Cluster 5 0.4508793 0.4126853 0.4681767 0.4482931 0.4893578 0.4975216 0.4916681
                 11982
                           11983
                                               11985
                                                          11986
                                                                    11987
##
                                     11984
                                                                              11988
## Cluster 1 0.6895517 0.6590318 0.6256432 0.6319814 0.6456313 0.6639907 0.7530225
## Cluster 2 0.4776422 0.4429384 0.5235924 0.4935513 0.4166510 0.4872669 0.5478768
## Cluster 3 0.6989887 0.7036936 0.6937830 0.6757475 0.7012511 0.7139986 0.7583106
## Cluster 4 0.5229134 0.5152996 0.5097220 0.5252130 0.5107870 0.6095415 0.6244946
  Cluster 5 0.4591724 0.4754828 0.4317802 0.4267802 0.4426810 0.4827371 0.5417069
                           11990
                                     11991
                 11989
                                               11992
                                                          11993
                                                                    11994
                                                                              11995
## Cluster 1 0.7997122 0.8638435 0.8751353 0.9776220 1.0828912 0.9791141 0.9437958
## Cluster 2 0.5845484 0.6480968 0.7409912 0.7936833 0.9833460 0.9987390 0.9586129
## Cluster 3 0.7363433 0.7639787 0.7908766 0.8215943 0.9961773 0.9567291 0.9465972
## Cluster 4 0.6331011 0.6302852 0.6830722 0.7780830 0.8495848 0.7565415 0.7339675
## Cluster 5 0.4918664 0.4910733 0.5856983 0.6128103 0.7738793 0.8180603 0.7900690
##
                 11996
                           11997
                                     11998
                                               11999
                                                          12000
                                                                    12001
                                                                              12002
## Cluster 1 0.8514523 0.8229920 0.7467454 0.7089244 0.6072706 0.5088767 0.4431950
## Cluster 2 0.9005953 0.8594956 0.8335543 0.7463578 0.6601378 0.6123548 0.5072053
## Cluster 3 0.9028426 0.9314837 0.8901716 0.8007078 0.7101773 0.6788652 0.6070355
## Cluster 4 0.7160108 0.6706318 0.5617401 0.5548123 0.4836679 0.4430469 0.3643755
## Cluster 5 0.7601293 0.7914569 0.7498491 0.7554052 0.7174310 0.7519483 0.7971853
                 12003
                           12004
                                     12005
                                               12006
                                                          12007
                                                                    12008
## Cluster 1 0.3637109 0.2940027 0.2310411 0.2097599 0.1920013 0.1759987 0.1692003
## Cluster 2 0.3890909 0.3389384 0.3036510 0.2389472 0.2110381 0.1984047 0.1788974
## Cluster 3 0.5261957 0.4593518 0.3710071 0.3276908 0.2881206 0.2529518 0.2291234
## Cluster 4 0.3563141 0.3400000 0.3042058 0.3027690 0.2817870 0.2868989 0.2787581
## Cluster 5 0.6652069 0.5760345 0.5070776 0.4995603 0.4171078 0.3557500 0.3546422
##
                 12010
                           12011
                                     12012
                                               12013
                                                          12014
                                                                    12015
                                                                              12016
## Cluster 1 0.1704244 0.1701393 0.1673382 0.1673382 0.1708501 0.1767706 0.1926844
## Cluster 2 0.1622933 0.1600293 0.1545689 0.1583284 0.1709619 0.1804721 0.1914751
## Cluster 3 0.2196454 0.2085248 0.2021716 0.2034213 0.2096426 0.2230894 0.2191064
## Cluster 4 0.2515848 0.2529567 0.2686679 0.2768123 0.3000108 0.3514549 0.3650217
  Cluster 5 0.2907069 0.2637026 0.2711724 0.2649784 0.2358750 0.2650560 0.2787198
                                     12019
                                               12020
                 12017
                           12018
                                                          12021
                                                                    12022
                                                                              12023
## Cluster 1 0.2483780 0.2792347 0.3623528 0.4691141 0.5688475 0.6160650 0.7094642
## Cluster 2 0.2257537 0.2494927 0.2620000 0.3546100 0.3739677 0.3995249 0.4553548
## Cluster 3 0.2441021 0.2680766 0.2988695 0.3604851 0.4588879 0.5592511 0.6112709
## Cluster 4 0.4084946 0.4622996 0.5410289 0.5832744 0.6083755 0.5806606 0.6544477
## Cluster 5 0.2776207 0.2906983 0.3322500 0.3421207 0.3993491 0.4389267 0.4640172
                 12024
                           12025
                                     12026
                                               12027
                                                          12028
                                                                    12029
                                                                              12030
## Cluster 1 0.7690199 0.7929138 0.8233276 0.7933806 0.8998952 0.8505292 0.7312653
## Cluster 2 0.4635953 0.5081290 0.5603695 0.5390029 0.6314604 0.6238123 0.5648534
## Cluster 3 0.6547220 0.7226199 0.7630099 0.8009645 0.7561674 0.8270624 0.8069759
## Cluster 4 0.6314513 0.6436390 0.6236643 0.6718773 0.6067978 0.5726751 0.5829603
## Cluster 5 0.5272974 0.5227155 0.5281810 0.4981767 0.5802026 0.5586897 0.5813276
##
                 12031
                           12032
                                     12033
                                               12034
                                                          12035
                                                                    12036
                                                                              12037
## Cluster 1 0.6810279 0.6588581 0.6284881 0.5933183 0.6407414 0.6684098 0.8026751
## Cluster 2 0.5041261 0.5365015 0.4980440 0.4331261 0.4897977 0.5053666 0.5928065
## Cluster 3 0.7566014 0.7323489 0.6951475 0.6596312 0.6537589 0.7104213 0.7357929
## Cluster 4 0.5664260 0.5168087 0.5136065 0.5914296 0.5481877 0.6439856 0.6785379
## Cluster 5 0.5060733 0.5159138 0.4486595 0.4213793 0.4536078 0.4438793 0.4966509
##
                 12038
                           12039
                                     12040
                                               12041
                                                          12042
                                                                    12043
                                                                              12044
```

```
## Cluster 1 0.8141897 0.8779509 0.9872507 0.9960637 0.9819324 0.9112109 0.8979350
## Cluster 2 0.6703930 0.8208856 0.8992346 1.0314018 1.0048739 1.0928856 1.0693284
## Cluster 3 0.7119504 0.7892624 0.8531277 0.9540610 0.9416553 0.9134965 0.9498723
## Cluster 4 0.7300000 0.7706606 0.8101083 0.7921769 0.7170614 0.7245596 0.7307653
## Cluster 5 0.6037026 0.6457931 0.7100474 0.7687931 0.7406078 0.7871207 0.8290603
                 12045
                           12046
                                               12048
                                                          12049
##
                                     12047
                                                                    12050
                                                                              12051
## Cluster 1 0.8287666 0.7457653 0.6418276 0.5331472 0.4552719 0.3775265 0.2852188
## Cluster 2 0.9877654 0.8899883 0.7875865 0.6994135 0.5822405 0.4463754 0.3398944
## Cluster 3 0.8924738 0.8572085 0.7760681 0.6962440 0.5932624 0.5247603 0.4331801
## Cluster 4 0.7040433 0.6036426 0.5225054 0.4849819 0.4291805 0.3644621 0.3327509
  Cluster 5 0.8895948 0.8392112 0.8533707 0.7877802 0.7562586 0.7701078 0.7263017
                           12053
                                     12054
                                               12055
                 12052
                                                          12056
                                                                    12057
                                                                              12058
## Cluster 1 0.2231233 0.1880995 0.1737480 0.1660809 0.1626114 0.1592454 0.1523196
## Cluster 2 0.2522903 0.2023431 0.1726481 0.1596569 0.1600938 0.1468211 0.1455748
## Cluster 3 0.3395716 0.2774752 0.2506752 0.2304326 0.2086227 0.1993135 0.1972766
## Cluster 4 0.3001805 0.2686643 0.2541949 0.2427726 0.2518520 0.2598484 0.2464007
## Cluster 5 0.5625948 0.5020862 0.4248103 0.3472888 0.3063362 0.3291509 0.2751207
##
                 12059
                           12060
                                     12061
                                               12062
                                                          12063
                                                                    12064
                                                                              12065
## Cluster 1 0.1511393 0.1665942 0.1613183 0.1679416 0.2036658 0.2818249 0.4061340
## Cluster 2 0.1489531 0.1468387 0.1619062 0.1854135 0.2393050 0.3146979 0.4602141
## Cluster 3 0.1975106 0.2040752 0.2126468 0.2241504 0.2473589 0.2745929 0.3402213
## Cluster 4 0.2619711 0.2724007 0.2824152 0.3480650 0.4314116 0.6259386 0.7918592
## Cluster 5 0.2441552 0.2616897 0.2741293 0.2702241 0.3029052 0.2974569 0.3340345
                 12066
                           12067
                                     12068
                                               12069
                                                          12070
                                                                    12071
## Cluster 1 0.5458859 0.5327891 0.5308289 0.5188554 0.5063647 0.4877347 0.4445584
## Cluster 2 0.4785484 0.4039589 0.3467155 0.2757097 0.2751349 0.2812962 0.2395425
## Cluster 3 0.3949688 0.4348440 0.4574865 0.4464000 0.4748894 0.4714468 0.4498794
## Cluster 4 0.9013935 0.7354440 0.5271408 0.4209422 0.3944116 0.4202960 0.3938412
## Cluster 5 0.4098793 0.4280948 0.3902026 0.3804784 0.3574095 0.3316422 0.3280603
##
                 12073
                           12074
                                     12075
                                               12076
                                                          12077
                                                                    12078
                                                                              12079
## Cluster 1 0.4582228 0.4341021 0.4647653 0.4640491 0.5084218 0.4829602 0.4739058
## Cluster 2 0.2427273 0.2247683 0.2167361 0.2763372 0.2795455 0.2454604 0.2637801
## Cluster 3 0.4719376 0.4605674 0.4828411 0.5220028 0.5516312 0.5076468 0.5174156
## Cluster 4 0.3728556 0.3946173 0.4181227 0.4117870 0.3958953 0.3717437 0.3772924
## Cluster 5 0.3546164 0.3384612 0.3532414 0.3475000 0.3899353 0.3596638 0.3552155
                                               12083
                 12080
                           12081
                                     12082
                                                          12084
                                                                    12085
                                                                              12086
## Cluster 1 0.4572188 0.4825544 0.5517812 0.5934761 0.6985040 0.8896300 0.9395504
## Cluster 2 0.2623343 0.2357830 0.2703314 0.2868534 0.3605220 0.4421056 0.5825806
## Cluster 3 0.5341844 0.5640794 0.6272638 0.7410823 0.7536397 0.7383348 0.7427915
## Cluster 4 0.4065162 0.4291191 0.4940650 0.5514296 0.6623502 0.6962022 0.7201769
## Cluster 5 0.3159267 0.3497155 0.3628879 0.3891767 0.4386207 0.4595172 0.4783534
                 12087
                           12088
                                     12089
                                               12090
                                                          12091
                                                                    12092
                                                                              12093
## Cluster 1 0.9232838 0.8945756 0.9903740 1.0113979 0.9863634 0.9038355 0.8879032
## Cluster 2 0.6712933 0.8714809 1.0392551 1.0955455 1.0452170 1.0361554 1.0032874
## Cluster 3 0.7199716 0.7361560 0.8679021 0.9172794 0.9184837 0.9285191 0.9222043
## Cluster 4 0.7302671 0.6897112 0.7114729 0.7476895 0.7317978 0.6876173 0.7518700
## Cluster 5 0.5664353 0.6238621 0.6874397 0.8035086 0.8101379 0.7835991 0.8505388
                           12095
                                     12096
                                                          12098
##
                 12094
                                               12097
                                                                    12099
                                                                              12100
## Cluster 1 0.7877653 0.6865663 0.5920902 0.4836830 0.3798594 0.2973210 0.2178767
## Cluster 2 0.8821114 0.8236774 0.7250674 0.5463284 0.4199120 0.3036569 0.2188768
## Cluster 3 0.8624142 0.7800099 0.7189674 0.6367418 0.5505957 0.4459461 0.3482709
## Cluster 4 0.6579964 0.5898989 0.5638484 0.4707004 0.4065596 0.3082744 0.2796462
## Cluster 5 0.7971207 0.7837198 0.7505862 0.8078448 0.7641638 0.6531422 0.5348319
##
                 12101
                           12102
                                     12103
                                               12104
                                                          12105
                                                                    12106
                                                                              12107
```

```
## Cluster 1 0.1842666 0.1706910 0.1602082 0.1568077 0.1542454 0.1571671 0.1587759
## Cluster 2 0.1926862 0.1568534 0.1466921 0.1488123 0.1392287 0.1358856 0.1459648
## Cluster 3 0.2887191 0.2395475 0.2161943 0.2076270 0.1993035 0.1968128 0.1880610
## Cluster 4 0.2876209 0.2585415 0.2251119 0.2404440 0.2338303 0.2335415 0.2317437
## Cluster 5 0.4643534 0.4336164 0.3411422 0.3035560 0.3026853 0.2673405 0.2594655
                 12108
                           12109
                                     12110
                                                         12112
                                               12111
                                                                    12113
## Cluster 1 0.1582599 0.1611141 0.1754549 0.2099920 0.2594682 0.4163408 0.5515623
## Cluster 2 0.1328534 0.1575220 0.1751085 0.2467654 0.3094985 0.4378534 0.4922933
## Cluster 3 0.1866525 0.2013106 0.2161475 0.2499645 0.2720312 0.3350085 0.3958922
## Cluster 4 0.2764946 0.3008087 0.3593718 0.4074260 0.5544007 0.7459819 0.8550253
  Cluster 5 0.2558103 0.2787241 0.2462888 0.2998793 0.3205000 0.3632371 0.4348578
                           12116
                                     12117
                                               12118
                 12115
                                                         12119
                                                                    12120
                                                                              12121
## Cluster 1 0.5521671 0.5252387 0.5153236 0.5273886 0.4792507 0.4664629 0.4935424
## Cluster 2 0.4200117 0.3234047 0.2646012 0.2464868 0.2667243 0.2488563 0.2203079
## Cluster 3 0.4720709 0.4734014 0.4329518 0.4122667 0.4315915 0.4356950 0.4528624
## Cluster 4 0.6647834 0.5335235 0.4476751 0.4229170 0.3601552 0.3503430 0.3738014
## Cluster 5 0.4490647 0.4379784 0.3655000 0.3377759 0.3394138 0.3733448 0.3239224
##
                 12122
                           12123
                                     12124
                                               12125
                                                         12126
                                                                    12127
                                                                              12128
## Cluster 1 0.4831592 0.4685451 0.4790133 0.4865000 0.4648355 0.4781804 0.5042321
## Cluster 2 0.2295367 0.2099853 0.2215953 0.2622874 0.2500117 0.2298387 0.2249795
## Cluster 3 0.4671078 0.4731007 0.5032766 0.5663021 0.4993574 0.5293277 0.5568156
## Cluster 4 0.3944513 0.3522960 0.3825848 0.4060578 0.4493141 0.4363574 0.4367148
## Cluster 5 0.3779612 0.3783966 0.3793017 0.4259095 0.3670388 0.3489009 0.3702414
                 12129
                           12130
                                     12131
                                               12132
                                                         12133
                                                                    12134
## Cluster 1 0.5108064 0.5662865 0.6536300 0.8255398 0.9562573 1.0188886 0.9725942
## Cluster 2 0.2578211 0.3107361 0.3470264 0.3685103 0.4821760 0.6238094 0.7541525
## Cluster 3 0.5839021 0.6872312 0.7404241 0.8104312 0.7732667 0.7964113 0.8241617
## Cluster 4 0.4504910 0.5248412 0.6287762 0.6711805 0.7198700 0.7445271 0.8000072
## Cluster 5 0.3900603 0.3929397 0.4595431 0.4488879 0.4840172 0.5287672 0.6172931
##
                 12136
                           12137
                                     12138
                                               12139
                                                         12140
                                                                    12141
                                                                              12142
## Cluster 1 0.9345663 1.0429602 1.0151910 0.9885517 0.9108037 0.9000557 0.8126273
## Cluster 2 0.9156804 1.0904868 1.0620029 1.0182522 1.0564956 1.0361525 0.9538065
## Cluster 3 0.8272397 0.9247688 0.9438936 0.9771816 0.9222213 0.9272950 0.8735007
## Cluster 4 0.7173502 0.7643538 0.7526643 0.7742708 0.7663574 0.7311552 0.6844404
## Cluster 5 0.6455431 0.7537457 0.7920776 0.8929569 0.8014310 0.8082888 0.8757586
                           12144
                                     12145
                                                         12147
                 12143
                                               12146
                                                                    12148
## Cluster 1 0.7158541 0.5790955 0.4878753 0.3959761 0.2940212 0.2195000 0.1927931
## Cluster 2 0.9123930 0.7385865 0.6092346 0.4481349 0.3229238 0.2528680 0.2020088
## Cluster 3 0.8180057 0.7418298 0.6701121 0.5590241 0.4560894 0.3473106 0.2758837
## Cluster 4 0.6246534 0.5437040 0.4670361 0.4038953 0.3465740 0.2883646 0.2858773
## Cluster 5 0.7630690 0.8033534 0.8237845 0.7580129 0.6265991 0.5438276 0.4506853
                           12151
                                     12152
                                               12153
                                                         12154
                 12150
                                                                    12155
                                                                              12156
## Cluster 1 0.1718873 0.1585013 0.1516260 0.1524350 0.1508926 0.1561008 0.1668011
## Cluster 2 0.1626305 0.1595455 0.1541056 0.1470997 0.1432405 0.1595367 0.1476569
## Cluster 3 0.2432411 0.2320794 0.2062879 0.1995177 0.1942340 0.1891277 0.1922284
## Cluster 4 0.2627690 0.2458736 0.2404079 0.2388700 0.2607653 0.2634043 0.2685018
## Cluster 5 0.3761078 0.3479052 0.3146379 0.3114698 0.2853190 0.2576983 0.2637845
                           12158
##
                 12157
                                     12159
                                               12160
                                                          12161
                                                                    12162
                                                                              12163
## Cluster 1 0.1708634 0.1711446 0.2003156 0.2569416 0.3840809 0.5593369 0.5733090
## Cluster 2 0.1667566 0.1749032 0.2300616 0.3217214 0.4667595 0.5025718 0.4260997
## Cluster 3 0.1965035 0.2128184 0.2288979 0.2696539 0.3404936 0.4186170 0.4610043
## Cluster 4 0.3039892 0.3591011 0.4363610 0.6457581 0.7614910 0.8362202 0.6867076
## Cluster 5 0.2672888 0.2480345 0.3069569 0.3214267 0.3706466 0.4364009 0.4099698
##
                 12164
                           12165
                                     12166
                                               12167
                                                         12168
                                                                    12169
                                                                              12170
```

```
## Cluster 1 0.5696101 0.5366844 0.4920027 0.4740676 0.4700597 0.4363859 0.4251127
## Cluster 2 0.3414018 0.2862522 0.2719531 0.2446804 0.2225220 0.2031144 0.2097683
## Cluster 3 0.4414823 0.4385745 0.4490851 0.4580752 0.4395092 0.4399546 0.4542780
## Cluster 4 0.6403935 0.4927040 0.4663755 0.4194188 0.3885343 0.4092960 0.4065307
## Cluster 5 0.3968103 0.3817457 0.3997629 0.3399698 0.3538793 0.3544828 0.3636034
                           12172
                                                         12175
##
                 12171
                                     12173
                                               12174
                                                                    12176
## Cluster 1 0.4443488 0.4582812 0.4678501 0.4248369 0.4372175 0.4261194 0.4467228
## Cluster 2 0.2137771 0.2402463 0.2890821 0.2755630 0.2348504 0.2220674 0.2298387
## Cluster 3 0.4519447 0.4808567 0.5230567 0.4843277 0.4618014 0.4876340 0.5677674
## Cluster 4 0.3698339 0.3987256 0.3850722 0.3814585 0.3921877 0.3858014 0.3904260
  Cluster 5 0.3518190 0.3323233 0.3654957 0.3377586 0.3071509 0.2890603 0.3294181
                 12178
                           12179
                                     12180
                                               12181
                                                         12182
                                                                    12183
                                                                              12184
## Cluster 1 0.4832851 0.5492122 0.6633408 0.8051777 0.9303793 0.8876180 0.8554920
## Cluster 2 0.2371848 0.2751877 0.3239619 0.3707302 0.5126657 0.6821789 0.7517449
## Cluster 3 0.6219348 0.6724667 0.7390028 0.7355177 0.7741447 0.7654823 0.7471404
## Cluster 4 0.4464838 0.5222671 0.6455704 0.7014621 0.7712491 0.7332599 0.7131588
## Cluster 5 0.3600216 0.4310647 0.3808664 0.4498491 0.5441897 0.5682198 0.5997457
##
                 12185
                           12186
                                     12187
                                               12188
                                                         12189
                                                                    12190
                                                                              12191
## Cluster 1 0.9670796 1.0038289 0.9552825 0.8921207 0.9025159 0.8290610 0.6987825
## Cluster 2 0.9576246 1.1158944 0.9998123 1.0418328 1.0044076 0.8889208 0.8000821
## Cluster 3 0.8963986 0.9486993 0.9525404 0.9253887 0.8982539 0.8449830 0.8338199
## Cluster 4 0.7175596 0.7515704 0.7673213 0.6893935 0.7042635 0.6529495 0.6268159
## Cluster 5 0.6680259 0.7163362 0.7952414 0.7784267 0.7691164 0.8103233 0.8012328
                 12192
                           12193
                                     12194
                                               12195
                                                         12196
                                                                    12197
## Cluster 1 0.6098594 0.4927878 0.3971631 0.2838833 0.2218780 0.1894390 0.1722082
## Cluster 2 0.6701818 0.5694047 0.3989443 0.3069472 0.2234164 0.1895337 0.1784721
## Cluster 3 0.7392908 0.7026809 0.5695730 0.4625362 0.3670227 0.3042298 0.2520567
## Cluster 4 0.5092310 0.4725054 0.4190036 0.3113935 0.2738700 0.2762347 0.2556354
## Cluster 5 0.7287629 0.8175862 0.7508405 0.6262629 0.4911767 0.4242586 0.3792457
                 12199
                           12200
                                     12201
                                               12202
                                                         12203
                                                                    12204
                                                                              12205
## Cluster 1 0.1654748 0.1585305 0.1538223 0.1522905 0.1492626 0.1543952 0.1656817
## Cluster 2 0.1519208 0.1481584 0.1422727 0.1468739 0.1403372 0.1389531 0.1626598
## Cluster 3 0.2320170 0.2180695 0.2034355 0.1963943 0.1946241 0.1968525 0.2082865
## Cluster 4 0.2456173 0.2390325 0.2573249 0.2530181 0.2575812 0.2606209 0.2730361
## Cluster 5 0.3365819 0.3099569 0.3047198 0.2754569 0.2736595 0.2622241 0.2615388
                 12206
                                     12208
                                                         12210
                           12207
                                               12209
                                                                    12211
## Cluster 1 0.1705584 0.2011353 0.2626923 0.4305782 0.5700544 0.5663342 0.5531870
## Cluster 2 0.1793724 0.2420176 0.3328886 0.4968035 0.5667038 0.4263109 0.3215513
## Cluster 3 0.2165943 0.2390085 0.2727064 0.3421915 0.4005206 0.4847418 0.4737489
## Cluster 4 0.3231697 0.4322238 0.5669711 0.7196751 0.8117184 0.7359242 0.5647112
## Cluster 5 0.2368578 0.3061724 0.3392457 0.3641853 0.4496336 0.4235862 0.3969095
                 12213
                           12214
                                     12215
                                               12216
                                                         12217
                                                                    12218
                                                                              12219
## Cluster 1 0.5453568 0.5161340 0.4757745 0.4593302 0.4471512 0.4264218 0.4498939
## Cluster 2 0.2687566 0.2402815 0.2402463 0.2256628 0.2524340 0.2189795 0.2421261
## Cluster 3 0.4669035 0.4259560 0.4348270 0.4304383 0.4556582 0.4518085 0.4378709
## Cluster 4 0.4819278 0.4126318 0.4076101 0.4313321 0.3624585 0.3471083 0.4087184
## Cluster 5 0.3394871 0.3293966 0.3082241 0.2998017 0.3620043 0.3321983 0.3542888
                 12220
                           12221
##
                                     12222
                                               12223
                                                          12224
                                                                    12225
                                                                              12226
## Cluster 1 0.4331777 0.4648714 0.3987056 0.4046233 0.4207507 0.4993846 0.5454483
## Cluster 2 0.2616012 0.2978065 0.2894839 0.2723138 0.2704047 0.2704604 0.2812258
## Cluster 3 0.4971319 0.5222241 0.5039773 0.5618950 0.5538766 0.5888227 0.6025291
## Cluster 4 0.4273285 0.3926895 0.3673502 0.3995596 0.3969567 0.4249206 0.4926643
## Cluster 5 0.3494698 0.3182974 0.3382543 0.3257586 0.4126724 0.3897974 0.3681595
##
                 12227
                           12228
                                     12229
                                               12230
                                                          12231
                                                                    12232
                                                                              12233
```

```
## Cluster 1 0.6257785 0.7426127 0.8741048 0.9921180 0.9443873 0.9439045 0.9732666
## Cluster 2 0.3097331 0.3695572 0.4540147 0.6057067 0.6906041 0.8540762 0.9834751
## Cluster 3 0.6591574 0.7085702 0.7839220 0.8255050 0.8290113 0.8190298 0.8964922
## Cluster 4 0.5493249 0.5865162 0.6868809 0.6966173 0.6807040 0.6794296 0.8085487
## Cluster 5 0.4011293 0.4183664 0.4539871 0.4730819 0.5620948 0.5823664 0.7347845
                           12235
                                     12236
                                                          12238
                                                                    12239
##
                 12234
                                               12237
## Cluster 1 0.9275438 0.9494337 0.9398422 0.9009058 0.7913793 0.6951764 0.5904907
## Cluster 2 1.0247859 0.9804516 0.9877449 0.9915513 0.9056686 0.8092991 0.7100029
## Cluster 3 0.9431929 0.9356014 0.8800099 0.9019929 0.8253631 0.7780113 0.7357745
## Cluster 4 0.7460542 0.7181841 0.6441300 0.6604007 0.6407653 0.5315848 0.4596895
  Cluster 5 0.7935862 0.7659095 0.7920431 0.8415086 0.7949698 0.7390862 0.7336940
                                               12244
                 12241
                           12242
                                     12243
                                                          12245
                                                                    12246
                                                                              12247
## Cluster 1 0.4967082 0.4005809 0.3019629 0.2326379 0.1917427 0.1748926 0.1678276
## Cluster 2 0.6190117 0.5017009 0.3599765 0.2558710 0.2192610 0.1791085 0.1686921
## Cluster 3 0.6924922 0.5763149 0.4697745 0.3936894 0.3141234 0.2809574 0.2318851
## Cluster 4 0.4680289 0.4016173 0.3034621 0.2665235 0.2609892 0.2258159 0.2164260
## Cluster 5 0.8061638 0.7250819 0.6896336 0.6109784 0.5011164 0.4290905 0.3903879
##
                 12248
                           12249
                                     12250
                                               12251
                                                          12252
                                                                    12253
                                                                              12254
## Cluster 1 0.1599920 0.1530212 0.1541286 0.1544098 0.1614695 0.1547069 0.1689814
## Cluster 2 0.1615982 0.1537243 0.1521496 0.1450674 0.1444311 0.1569912 0.1777977
## Cluster 3 0.2187957 0.2162184 0.2005504 0.2028270 0.2024000 0.2105745 0.2258014
## Cluster 4 0.2292310 0.2460975 0.2634693 0.2386643 0.2789170 0.2837437 0.3114621
## Cluster 5 0.3031552 0.3054784 0.2695862 0.2684741 0.2610172 0.2785560 0.2501897
                 12255
                           12256
                                     12257
                                               12258
                                                          12259
                                                                    12260
## Cluster 1 0.1916286 0.2483859 0.3693289 0.5568037 0.5575584 0.5231366 0.5057095
## Cluster 2 0.2281965 0.3166921 0.4296041 0.4626979 0.4130997 0.3409091 0.2818152
## Cluster 3 0.2505560 0.2716426 0.3606142 0.4338936 0.4524099 0.4630071 0.4403872
## Cluster 4 0.4164043 0.5471155 0.7784404 0.8085884 0.6763574 0.5174007 0.4358845
## Cluster 5 0.2921078 0.3009741 0.3911379 0.4030086 0.4155991 0.4021121 0.3307974
##
                 12262
                           12263
                                     12264
                                               12265
                                                          12266
                                                                    12267
                                                                              12268
## Cluster 1 0.5511512 0.5182109 0.4957241 0.4742268 0.4358316 0.4416698 0.5213369
## Cluster 2 0.2537155 0.2275777 0.2414633 0.2109032 0.2222111 0.2123343 0.2462639
## Cluster 3 0.4510227 0.4467007 0.4999745 0.4837447 0.4711376 0.5108879 0.5427362
## Cluster 4 0.4319134 0.4332202 0.4107256 0.4238195 0.3681011 0.3870144 0.4052780
## Cluster 5 0.3672112 0.3974526 0.3487414 0.3644397 0.3618491 0.3669009 0.3140776
                                     12271
                                               12272
                 12269
                           12270
                                                          12273
                                                                    12274
                                                                              12275
## Cluster 1 0.5393780 0.4832905 0.4819072 0.4375517 0.4468912 0.4900743 0.6095385
## Cluster 2 0.2957947 0.2903402 0.2682669 0.2816422 0.2799589 0.2739443 0.3267801
## Cluster 3 0.5669702 0.5468709 0.5242014 0.5269560 0.5887078 0.5473560 0.6421248
## Cluster 4 0.4024765 0.3839711 0.4187292 0.4181661 0.4386679 0.4757148 0.5081661
## Cluster 5 0.3388578 0.3403060 0.3507672 0.3842931 0.3516293 0.3660819 0.4374698
                 12276
                           12277
                                     12278
                                               12279
                                                          12280
                                                                    12281
                                                                              12282
## Cluster 1 0.6774416 0.7934019 0.8447175 0.9019164 0.8589615 0.9469867 0.9505544
## Cluster 2 0.3527449 0.4277771 0.5381349 0.6142375 0.7523519 0.8800616 0.9713988
## Cluster 3 0.7172865 0.7269943 0.7629688 0.7543163 0.8034879 0.9083206 0.8977064
## Cluster 4 0.5754440 0.6450650 0.5799061 0.6047365 0.6319567 0.6934079 0.7312274
## Cluster 5 0.4651466 0.4607802 0.4324397 0.5173793 0.5766207 0.7310302 0.7495905
                           12284
                                     12285
##
                 12283
                                               12286
                                                          12287
                                                                    12288
                                                                              12289
## Cluster 1 0.8837175 0.8389881 0.8145371 0.7332599 0.6717454 0.5918740 0.5149151
## Cluster 2 0.9116393 0.8897566 0.8813783 0.8502669 0.8045572 0.7144839 0.6194135
## Cluster 3 0.9170511 0.8926553 0.9115433 0.8110965 0.7888553 0.7123163 0.6482213
## Cluster 4 0.6818195 0.6272274 0.5929928 0.5950866 0.5625415 0.5468231 0.4629531
## Cluster 5 0.7597026 0.7812026 0.8051552 0.7984612 0.8289095 0.7342069 0.7636034
##
                 12290
                           12291
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                                                                    12295
                                                                              12296
```

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## Cluster 1 0.4269218 0.3418714 0.2731340 0.2318740 0.2073103 0.1877971 0.1721525
## Cluster 2 0.4958475 0.3767390 0.3079677 0.2572522 0.2091877 0.1747097 0.1798475
## Cluster 3 0.5799050 0.5186738 0.4346539 0.3584227 0.3124312 0.2822312 0.2508709
## Cluster 4 0.4122094 0.3401697 0.2782058 0.2674765 0.2542852 0.2325632 0.2421986
## Cluster 5 0.7623707 0.6940517 0.5916164 0.5224009 0.4528966 0.3981336 0.3325172
                 12297
                           12298
                                     12299
                                               12300
                                                         12301
                                                                    12302
##
## Cluster 1 0.1688462 0.1651631 0.1652069 0.1607560 0.1592653 0.1593210 0.1766936
## Cluster 2 0.1659472 0.1601437 0.1495748 0.1466188 0.1463871 0.1746979 0.1967566
## Cluster 3 0.2331943 0.2191234 0.2159362 0.2151121 0.2144511 0.2160809 0.2349574
## Cluster 4 0.2611480 0.2586823 0.2522563 0.2792780 0.2765921 0.2988736 0.3418484
  Cluster 5 0.3440086 0.3116250 0.3031509 0.2832845 0.2910948 0.2540345 0.2841293
                 12304
                           12305
                                     12306
                                               12307
                                                         12308
                                                                    12309
                                                                              12310
## Cluster 1 0.1916698 0.2576618 0.3261247 0.4167440 0.5097918 0.5856618 0.6588183
## Cluster 2 0.2172522 0.2846891 0.2655279 0.3342551 0.3926158 0.4204311 0.4387390
## Cluster 3 0.2300652 0.2592723 0.2723716 0.3355730 0.3973390 0.4392539 0.5028156
## Cluster 4 0.4265307 0.5516137 0.6404982 0.6575126 0.6172671 0.7053755 0.6436209
## Cluster 5 0.2992284 0.3121767 0.3261379 0.3619612 0.4226595 0.5152759 0.4426897
##
                 12311
                           12312
                                     12313
                                               12314
                                                         12315
                                                                    12316
                                                                              12317
## Cluster 1 0.7255040 0.7381472 0.7355000 0.6765199 0.6575623 0.6839337 0.6624218
## Cluster 2 0.4759824 0.4753754 0.5283988 0.4979326 0.4886804 0.4339883 0.4391261
## Cluster 3 0.5801617 0.6112809 0.6416979 0.6855872 0.7122950 0.7650539 0.7292000
## Cluster 4 0.6662166 0.5488736 0.5228087 0.5553538 0.5290361 0.5149675 0.4807870
## Cluster 5 0.4986078 0.5200388 0.4919009 0.4687974 0.4442112 0.4944483 0.5141121
                 12318
                           12319
                                     12320
                                               12321
                                                          12322
## Cluster 1 0.6681326 0.6303966 0.5990517 0.5672056 0.5778117 0.5877109 0.6628939
## Cluster 2 0.4751906 0.3852610 0.3958211 0.4213109 0.4516804 0.4971261 0.4733372
## Cluster 3 0.7133447 0.6890837 0.6633319 0.6633887 0.7528908 0.7101078 0.7061887
## Cluster 4 0.5347401 0.5195848 0.4474621 0.5014693 0.5182708 0.5516606 0.5484152
## Cluster 5 0.4416121 0.5079267 0.4513879 0.4416293 0.4589009 0.4389871 0.4868103
##
                 12325
                           12326
                                     12327
                                               12328
                                                         12329
                                                                    12330
                                                                              12331
## Cluster 1 0.7451684 0.8638143 0.8774085 0.8658793 0.9543422 0.9712931 0.9088859
## Cluster 2 0.5451378 0.5856569 0.6691818 0.8105015 0.9982522 1.0299853 0.9948416
## Cluster 3 0.7103050 0.7867390 0.7881489 0.8368965 0.8927660 0.9178369 0.9431433
## Cluster 4 0.5673141 0.6237112 0.7343682 0.6887617 0.7735848 0.7161372 0.6644657
## Cluster 5 0.5349310 0.4917069 0.5186810 0.5996207 0.7433836 0.8533103 0.8638534
                                     12334
                                               12335
                                                         12336
                 12332
                           12333
                                                                    12337
## Cluster 1 0.8770610 0.7791366 0.7412202 0.6633236 0.5937175 0.4973979 0.3935942
## Cluster 2 0.9246510 0.8627067 0.8105279 0.6983548 0.6757801 0.5909413 0.4593402
## Cluster 3 0.8929773 0.8871745 0.8162255 0.7598085 0.6823149 0.6514511 0.5947972
## Cluster 4 0.6053430 0.5992599 0.5399639 0.5033863 0.4423105 0.4187148 0.4069025
## Cluster 5 0.8387198 0.7930431 0.7746293 0.7641207 0.7107026 0.7292500 0.7482198
                 12385
                           12386
                                     12387
                                               12388
                                                         12389
                                                                    12390
                                                                              12391
## Cluster 1 0.3062666 0.2471950 0.2077003 0.1833064 0.1724178 0.1595544 0.1524337
## Cluster 2 0.3614751 0.2893959 0.2449267 0.1812903 0.1737654 0.1544663 0.1551877
## Cluster 3 0.4916014 0.4225660 0.3491007 0.2934014 0.2565007 0.2349433 0.2153801
## Cluster 4 0.3400036 0.2694043 0.2604296 0.2458159 0.2759061 0.2307617 0.2250361
## Cluster 5 0.6926509 0.6002371 0.4933362 0.4339353 0.3956379 0.3638534 0.3089267
                           12393
                                     12394
                                               12395
                                                          12396
##
                 12392
                                                                    12397
                                                                              12398
## Cluster 1 0.1490637 0.1548714 0.1580849 0.1551379 0.1649443 0.1804244 0.2086658
## Cluster 2 0.1517126 0.1445865 0.1486510 0.1557273 0.1750264 0.2208328 0.2762405
## Cluster 3 0.2073177 0.2046582 0.2062227 0.2009262 0.1988043 0.2257660 0.2441504
## Cluster 4 0.2213646 0.2579314 0.2569928 0.2439350 0.2631877 0.3334946 0.5453285
## Cluster 5 0.2881293 0.2988233 0.2682931 0.2685905 0.2805086 0.2748750 0.2686897
##
                 12399
                           12400
                                     12401
                                               12402
                                                         12403
                                                                    12404
                                                                              12405
```

```
## Cluster 1 0.2807082 0.3559761 0.3921538 0.4348369 0.4788475 0.5128488 0.5788793
## Cluster 2 0.3657038 0.3922903 0.4069355 0.3261026 0.2859120 0.2887801 0.3048856
## Cluster 3 0.3019674 0.3134922 0.3445035 0.3598879 0.3785901 0.4346369 0.4602156
## Cluster 4 0.5585740 0.5715957 0.6248773 0.5979603 0.5413394 0.5448736 0.5318881
## Cluster 5 0.3397328 0.3900991 0.4275776 0.4483491 0.4565302 0.4365690 0.4861207
                 12406
                           12407
                                     12408
                                               12409
                                                         12410
##
                                                                    12411
## Cluster 1 0.5468382 0.5715584 0.5725358 0.5894111 0.6201061 0.6334403 0.6061618
## Cluster 2 0.3164663 0.2860762 0.2912903 0.3023871 0.3218680 0.3690674 0.3845337
## Cluster 3 0.4932411 0.5270213 0.5489745 0.6138723 0.6550482 0.6494965 0.6826667
## Cluster 4 0.5294549 0.5219350 0.5287040 0.5291625 0.5812347 0.5334982 0.4775884
  Cluster 5 0.4559009 0.4107241 0.4632284 0.4463017 0.4704741 0.5569741 0.4702629
                           12414
                                     12415
                                               12416
                 12413
                                                         12417
                                                                    12418
                                                                              12419
## Cluster 1 0.5682865 0.5902546 0.5686167 0.5979602 0.6530915 0.7607732 0.8749655
## Cluster 2 0.3378768 0.3768768 0.3539707 0.3550499 0.3796569 0.3958592 0.4697947
## Cluster 3 0.6831603 0.6569645 0.6721787 0.7101248 0.7635617 0.8323504 0.8360511
## Cluster 4 0.4776173 0.4436823 0.4937365 0.4864007 0.5974513 0.6373213 0.7652816
## Cluster 5 0.4890129 0.4542112 0.5023836 0.4734267 0.4963707 0.4998836 0.5244138
##
                 12420
                           12421
                                     12422
                                               12423
                                                         12424
                                                                    12425
                                                                              12426
## Cluster 1 0.9421499 0.9281844 0.8542706 0.8963740 0.8616790 0.9135385 0.9052997
## Cluster 2 0.5935513 0.7873138 0.8561965 0.9507713 0.9866158 0.9642903 1.0097801
## Cluster 3 0.8305163 0.8336610 0.7866057 0.7875660 0.8260426 0.8619475 0.9056837
## Cluster 4 0.7512383 0.7831119 0.7249061 0.7094368 0.7279350 0.7355812 0.7243032
## Cluster 5 0.5505172 0.5500000 0.6280819 0.6455302 0.6772802 0.7306897 0.8143362
                 12427
                           12428
                                     12429
                                               12430
                                                         12431
## Cluster 1 0.8529443 0.8273011 0.7323117 0.6118408 0.5513037 0.4469562 0.3385172
## Cluster 2 1.0275425 1.0052258 0.8733636 0.7617595 0.6313490 0.5061202 0.3614956
## Cluster 3 0.8794028 0.8402823 0.8134723 0.7736823 0.7092766 0.6249035 0.5210979
## Cluster 4 0.7454585 0.6868051 0.6605848 0.5558087 0.4784585 0.4015162 0.3603357
## Cluster 5 0.8764483 0.8497500 0.8491897 0.8200776 0.8513405 0.8312500 0.6719914
                 12434
                           12435
                                     12436
                                               12437
                                                         12438
                                                                    12439
                                                                              12440
## Cluster 1 0.2679708 0.2193581 0.1834430 0.1699748 0.1609111 0.1583859 0.1555902
## Cluster 2 0.2609560 0.2167918 0.1803548 0.1654252 0.1583607 0.1462317 0.1471320
## Cluster 3 0.4202440 0.3358369 0.2895532 0.2496695 0.2367305 0.2211404 0.2100298
## Cluster 4 0.3286173 0.2740000 0.2332383 0.2500830 0.2374440 0.2259206 0.2130325
## Cluster 5 0.6105905 0.5491121 0.4689483 0.3995000 0.3549052 0.3235172 0.2811983
                                               12444
                           12442
                                     12443
                                                         12445
                 12441
                                                                    12446
                                                                              12447
## Cluster 1 0.1541645 0.1499602 0.1555239 0.1641737 0.1842599 0.2228926 0.2900358
## Cluster 2 0.1492581 0.1527390 0.1539619 0.1815748 0.2451173 0.2958182 0.4203930
## Cluster 3 0.2013929 0.2016979 0.1957376 0.1980766 0.2275248 0.2669858 0.3086965
## Cluster 4 0.2471372 0.2430181 0.2557978 0.3041516 0.3929025 0.5271769 0.6456245
## Cluster 5 0.2879957 0.2855043 0.2715086 0.2880086 0.2883190 0.2730000 0.3768491
                 12448
                           12449
                                     12450
                                               12451
                                                         12452
                                                                    12453
                                                                              12454
## Cluster 1 0.4112241 0.4226883 0.4893515 0.5185995 0.5239682 0.5557202 0.5701963
## Cluster 2 0.4207683 0.4719091 0.3380968 0.2865161 0.3220293 0.3070088 0.3448534
## Cluster 3 0.3465333 0.3709730 0.4350326 0.4387291 0.4638667 0.4530667 0.4808028
## Cluster 4 0.7291011 0.7555668 0.5809314 0.5789422 0.5046282 0.4815018 0.4662058
## Cluster 5 0.4346250 0.4495517 0.3815603 0.3952974 0.3942629 0.3675345 0.3972155
##
                 12455
                           12456
                                     12457
                                               12458
                                                          12459
                                                                    12460
                                                                              12461
## Cluster 1 0.5988422 0.5805464 0.6067281 0.6298408 0.6549761 0.6465477 0.6115332
## Cluster 2 0.3402141 0.3528152 0.2957155 0.3346950 0.3432991 0.3317009 0.3099120
## Cluster 3 0.5205773 0.5676496 0.6146326 0.6826482 0.7153631 0.6898610 0.6849333
## Cluster 4 0.5043502 0.4976787 0.5236101 0.4684477 0.5432599 0.4671516 0.4872816
## Cluster 5 0.4076983 0.4162802 0.4073836 0.4630776 0.4955733 0.4598793 0.4905129
##
                 12462
                           12463
                                     12464
                                               12465
                                                         12466
                                                                    12467
                                                                              12468
```

```
## Cluster 1 0.6090570 0.5934416 0.6211273 0.6744443 0.7670318 0.9423435 1.0117838
## Cluster 2 0.3292082 0.3361466 0.3392111 0.4021466 0.4743255 0.5469677 0.6413109
## Cluster 3 0.6788738 0.7458823 0.7236000 0.8079234 0.9435404 0.9185872 0.8739362
## Cluster 4 0.5051300 0.4813394 0.5239314 0.5870036 0.6420939 0.7569097 0.7293935
## Cluster 5 0.4860172 0.4347888 0.4511336 0.5041121 0.4934612 0.5584267 0.6739138
                 12469
                           12470
                                     12471
                                               12472
                                                          12473
##
                                                                    12474
## Cluster 1 1.0005796 0.9681446 0.9471711 0.9707666 0.9221432 0.9510597 0.9214589
## Cluster 2 0.7476628 0.8986276 0.9827273 0.9853578 1.0227830 1.0514018 1.0573548
## Cluster 3 0.8628965 0.8194567 0.8894170 0.8711929 0.8924823 0.9721674 0.9231135
## Cluster 4 0.7498231 0.7250036 0.7186751 0.6949495 0.7478267 0.7690397 0.7514404
  Cluster 5 0.6862672 0.7063405 0.7328922 0.7919526 0.8398362 0.8239224 0.8714526
                           12477
                                     12478
                                               12479
                 12476
                                                          12480
                                                                    12481
                                                                              12482
## Cluster 1 0.8766273 0.7616088 0.6434111 0.5557308 0.4343210 0.3277798 0.2476631
## Cluster 2 1.0214751 0.9126158 0.7983754 0.6490235 0.4489648 0.3463314 0.2656628
## Cluster 3 0.8936624 0.8514000 0.7943149 0.7573418 0.6262752 0.5020227 0.4183688
## Cluster 4 0.7160903 0.6308014 0.5640108 0.5050830 0.4121516 0.3851480 0.3048556
## Cluster 5 0.8704741 0.8720388 0.8573017 0.9419397 0.8083664 0.7075000 0.6034741
##
                 12483
                           12484
                                     12485
                                               12486
                                                          12487
                                                                    12488
                                                                              12489
## Cluster 1 0.2146180 0.1783276 0.1589483 0.1538382 0.1521777 0.1507334 0.1494218
## Cluster 2 0.2251584 0.1779883 0.1549912 0.1541466 0.1458475 0.1395015 0.1375191
## Cluster 3 0.3482014 0.2907390 0.2376979 0.2173943 0.2031475 0.1936057 0.1854440
## Cluster 4 0.2835307 0.2753466 0.2499567 0.2467076 0.2662563 0.2500866 0.2596137
## Cluster 5 0.5028362 0.4095733 0.3822888 0.3317586 0.2921810 0.2788836 0.2813836
                 12490
                           12491
                                     12492
                                               12493
                                                          12494
                                                                    12495
## Cluster 1 0.1494324 0.1532122 0.1625053 0.1867745 0.2187241 0.2992732 0.3832069
## Cluster 2 0.1353314 0.1499501 0.1734340 0.2483226 0.2980264 0.4139238 0.3952903
## Cluster 3 0.1876057 0.1933333 0.2048326 0.2165929 0.2604184 0.3043092 0.3524610
## Cluster 4 0.2736606 0.2542888 0.3185090 0.3969531 0.5008736 0.6624693 0.7371300
## Cluster 5 0.2908966 0.2651293 0.2882414 0.3078276 0.2903621 0.3807543 0.4224310
##
                 12497
                           12498
                                     12499
                                               12500
                                                          12501
                                                                    12502
                                                                              12503
## Cluster 1 0.4408276 0.5136870 0.5548077 0.5694138 0.6280491 0.6296963 0.5566963
## Cluster 2 0.4085308 0.3536452 0.3453431 0.2723519 0.2741085 0.2790528 0.2969707
## Cluster 3 0.3517560 0.3937262 0.4177943 0.4951319 0.5399603 0.5665801 0.5608539
## Cluster 4 0.7021769 0.6682599 0.5822960 0.5249747 0.5469964 0.5681805 0.5671877
## Cluster 5 0.4627802 0.4503362 0.4833491 0.4513276 0.4358621 0.4111034 0.4562543
                                     12506
                                               12507
                                                          12508
                 12504
                           12505
                                                                    12509
                                                                              12510
## Cluster 1 0.6110398 0.5861300 0.6356751 0.6260464 0.5813767 0.5519682 0.5622812
## Cluster 2 0.3416716 0.2948328 0.3324692 0.3279765 0.3221261 0.3290674 0.3130205
## Cluster 3 0.5860525 0.6172652 0.7163745 0.6786965 0.6190227 0.6353092 0.6216723
## Cluster 4 0.5354477 0.5277798 0.5427978 0.5202744 0.4590036 0.4446462 0.4565054
## Cluster 5 0.4686422 0.4567457 0.4773664 0.5053060 0.4533017 0.4400172 0.4353190
                 12511
                           12512
                                     12513
                                               12514
                                                          12515
                                                                    12516
                                                                              12517
## Cluster 1 0.5650597 0.5786499 0.6038064 0.7124310 0.8568156 0.9494257 0.9416048
## Cluster 2 0.3245044 0.3065513 0.3236745 0.3667683 0.4587361 0.5781906 0.7338651
## Cluster 3 0.6405546 0.6872440 0.7193674 0.7740965 0.7714794 0.7444326 0.7542553
## Cluster 4 0.4108700 0.4741011 0.6379314 0.7040072 0.7293177 0.7075018 0.7002130
## Cluster 5 0.4027931 0.4420603 0.4492457 0.4796207 0.5130431 0.5539784 0.6186595
##
                 12518
                           12519
                                     12520
                                               12521
                                                          12522
                                                                    12523
                                                                              12524
## Cluster 1 0.9017546 0.8543992 0.8508103 0.8805650 0.9257507 0.8882944 0.8325212
## Cluster 2 0.7587801 0.7803372 0.8055484 0.8865425 0.9856158 1.0350293 1.0024575
## Cluster 3 0.7471929 0.7612312 0.7907220 0.8500681 0.9557319 0.9317362 0.9273149
## Cluster 4 0.6180975 0.6636534 0.6245884 0.6647076 0.7496606 0.7320939 0.6831913
## Cluster 5 0.5825388 0.6657931 0.6828276 0.7498750 0.7963664 0.8451207 0.8990603
##
                 12525
                           12526
                                     12527
                                               12528
                                                          12529
                                                                    12530
                                                                              12531
```

```
## Cluster 1 0.8002387 0.6555769 0.5792308 0.4473488 0.3236260 0.2404045 0.2036870
## Cluster 2 0.9084311 0.7926422 0.6710440 0.5460645 0.4001144 0.2942991 0.2422757
## Cluster 3 0.8553844 0.8010809 0.7636340 0.6288950 0.5285064 0.4550184 0.3528652
## Cluster 4 0.6699567 0.5837942 0.5015596 0.4673682 0.3879242 0.3332563 0.2662671
## Cluster 5 0.9334741 0.8914741 0.9468060 0.8519483 0.7838966 0.6655172 0.5355431
                           12533
                                     12534
                                               12535
                                                          12536
##
                 12532
                                                                    12537
## Cluster 1 0.1764788 0.1598859 0.1631446 0.1537095 0.1509854 0.1536817 0.1546830
## Cluster 2 0.1852874 0.1661554 0.1703871 0.1553226 0.1490469 0.1470059 0.1497625
## Cluster 3 0.2975333 0.2478057 0.2332411 0.2157943 0.2074610 0.1972723 0.2072454
## Cluster 4 0.2525740 0.2497581 0.2525126 0.2547906 0.2461733 0.2637762 0.2906606
  Cluster 5 0.4845517 0.3986164 0.3660431 0.3125647 0.2898664 0.3025431 0.2820690
                 12539
                           12540
                                     12541
                                               12542
                                                          12543
                                                                    12544
                                                                              12545
## Cluster 1 0.1591127 0.1620146 0.2001286 0.2203236 0.3125265 0.3622759 0.4038475
## Cluster 2 0.1651261 0.1842287 0.2533431 0.2881525 0.3760205 0.4220733 0.4230557
## Cluster 3 0.2064014 0.2112170 0.2366539 0.2804454 0.3167348 0.3356170 0.3583773
## Cluster 4 0.2887870 0.3226787 0.3800253 0.5528051 0.6130614 0.6275018 0.6981769
## Cluster 5 0.2929224 0.3010043 0.2804828 0.2831552 0.3356121 0.3637112 0.3804397
##
                 12546
                           12547
                                     12548
                                               12549
                                                          12550
                                                                    12551
                                                                              12552
## Cluster 1 0.5422520 0.5634045 0.5696021 0.5784509 0.5450981 0.4977440 0.5474615
## Cluster 2 0.4004809 0.3432346 0.3259238 0.2886481 0.2642933 0.2771613 0.2708710
## Cluster 3 0.4096965 0.4549305 0.4749574 0.4902794 0.5015560 0.5263872 0.5402468
## Cluster 4 0.6029639 0.5824296 0.4711733 0.4920036 0.4998267 0.5198700 0.4984838
## Cluster 5 0.4261810 0.3999052 0.3994698 0.4064440 0.4352026 0.4079526 0.4150129
                 12553
                           12554
                                     12555
                                               12556
                                                          12557
                                                                    12558
## Cluster 1 0.5247613 0.5845172 0.5304987 0.5543806 0.5339828 0.4850637 0.4648581
## Cluster 2 0.2566628 0.2860323 0.3125073 0.2918710 0.2790587 0.2634018 0.2982229
## Cluster 3 0.5664695 0.5771574 0.6352596 0.6061191 0.6189730 0.5846823 0.5845475
## Cluster 4 0.5157978 0.4993213 0.4595451 0.4344260 0.4649314 0.4018087 0.4799567
## Cluster 5 0.4454310 0.4173750 0.4761810 0.4347155 0.4564741 0.4603966 0.4257112
##
                 12560
                           12561
                                     12562
                                               12563
                                                          12564
                                                                    12565
                                                                              12566
## Cluster 1 0.5037387 0.5368952 0.6115637 0.7440080 0.8576300 0.9079576 0.7981737
## Cluster 2 0.2975660 0.3276774 0.3324252 0.3936217 0.4440997 0.5713754 0.6722962
## Cluster 3 0.6118667 0.6087149 0.7021532 0.7199929 0.7270695 0.7196979 0.7082071
## Cluster 4 0.4894801 0.5351913 0.5792635 0.6392744 0.6718664 0.6953863 0.6036715
## Cluster 5 0.4047457 0.4215647 0.4233448 0.4881853 0.5263017 0.5528966 0.5661552
                                     12569
                                               12570
                 12567
                           12568
                                                          12571
                                                                    12572
                                                                              12573
## Cluster 1 0.8021021 0.7743422 0.8137613 0.8587480 0.9069363 0.7869761 0.7430836
## Cluster 2 0.7127067 0.7476657 0.7696950 0.8786510 0.9257243 0.9135953 0.9101965
## Cluster 3 0.7039546 0.6823333 0.7392525 0.8486184 0.9099631 0.9015021 0.8565248
## Cluster 4 0.6421083 0.5752924 0.6367834 0.6819856 0.6577112 0.6400253 0.5961444
## Cluster 5 0.6053017 0.6120216 0.6174483 0.7578276 0.8049483 0.8308190 0.8759310
                 12574
                           12575
                                     12576
                                               12577
                                                          12578
                                                                    12579
                                                                              12580
## Cluster 1 0.6539721 0.5658236 0.4772865 0.3761008 0.2912175 0.2329761 0.2032042
## Cluster 2 0.7829179 0.6843607 0.5211672 0.4383196 0.3447097 0.2722053 0.2167449
## Cluster 3 0.7516128 0.7300780 0.6574057 0.5467106 0.4581177 0.3622369 0.3280468
## Cluster 4 0.5244404 0.4898664 0.4211588 0.3572202 0.3174513 0.2900144 0.2636318
## Cluster 5 0.8565259 0.9074828 0.8882586 0.7460259 0.6629741 0.6496207 0.5550216
                           12582
                                                          12585
##
                 12581
                                     12583
                                               12584
                                                                    12586
                                                                              12587
## Cluster 1 0.1706631 0.1687666 0.1596406 0.1586167 0.1640836 0.1625663 0.1594218
## Cluster 2 0.2045396 0.1755396 0.1520616 0.1487155 0.1531114 0.1456276 0.1587537
## Cluster 3 0.2767716 0.2518241 0.2243645 0.2108496 0.2065135 0.2064270 0.2060851
## Cluster 4 0.2325487 0.2463466 0.2426823 0.2373718 0.2565704 0.2856679 0.2706931
## Cluster 5 0.4595733 0.3989569 0.3360345 0.3046422 0.3427759 0.2895733 0.2794914
##
                 12588
                           12589
                                     12590
                                               12591
                                                          12592
                                                                    12593
                                                                              12594
```

```
## Cluster 1 0.1571366 0.1783966 0.1935849 0.2397149 0.2959430 0.3266671 0.4252162
## Cluster 2 0.1723812 0.1893548 0.2033754 0.2379941 0.2351789 0.3591466 0.3913255
## Cluster 3 0.2130794 0.2221830 0.2290270 0.2777489 0.2918426 0.3143447 0.3538965
## Cluster 4 0.2751949 0.3233249 0.3955812 0.4964910 0.5385343 0.5697978 0.5709097
## Cluster 5 0.2948793 0.3008966 0.2920948 0.3896509 0.3899310 0.3867284 0.4577026
                 12595
                           12596
                                     12597
                                               12598
                                                         12599
                                                                    12600
## Cluster 1 0.5117666 0.5856154 0.6748501 0.7401578 0.6720119 0.6924761 0.6733302
## Cluster 2 0.3678387 0.3619120 0.3997947 0.4172991 0.4418622 0.4585191 0.4935572
## Cluster 3 0.3926255 0.4760582 0.5323007 0.6002511 0.6538000 0.6398950 0.6677532
## Cluster 4 0.6331913 0.6895235 0.6264585 0.6204332 0.6262635 0.5450289 0.5608159
  Cluster 5 0.4704052 0.4566078 0.4688017 0.5789784 0.5952198 0.5183147 0.5199138
                           12603
                                     12604
                                               12605
                                                         12606
                 12602
                                                                    12607
                                                                              12608
## Cluster 1 0.6895080 0.7181618 0.6570875 0.6638515 0.5593276 0.5235199 0.5384576
## Cluster 2 0.5878944 0.5799355 0.5270176 0.5093490 0.4628563 0.4310352 0.4557947
## Cluster 3 0.6847191 0.7338454 0.7598723 0.7549078 0.7559716 0.6971631 0.7053674
## Cluster 4 0.5948303 0.5835740 0.5630650 0.6402130 0.5508484 0.5272455 0.4654477
## Cluster 5 0.5748621 0.5888793 0.5934569 0.5888319 0.5186250 0.5774698 0.5545819
##
                 12609
                           12610
                                     12611
                                               12612
                                                         12613
                                                                    12614
                                                                              12615
## Cluster 1 0.6087812 0.6580146 0.7850027 0.8869390 0.8619111 0.8667135 0.8156618
## Cluster 2 0.4742698 0.5252639 0.5584604 0.6138680 0.6400880 0.6787654 0.7581349
## Cluster 3 0.7504270 0.8079858 0.8037333 0.8369333 0.8207915 0.8118411 0.7656312
## Cluster 4 0.5695668 0.6618375 0.6717509 0.7174874 0.7756318 0.6801047 0.6564116
## Cluster 5 0.5517543 0.6254138 0.5901940 0.6143276 0.6365819 0.6560086 0.6273534
                 12616
                           12617
                                     12618
                                               12619
                                                          12620
## Cluster 1 0.8338740 0.8842692 0.8588621 0.8693594 0.7682374 0.6979682 0.6672997
## Cluster 2 0.7729062 0.8482375 0.8684604 0.9123372 0.8531848 0.8466012 0.8194956
## Cluster 3 0.7860567 0.8504496 0.9011915 0.9540511 0.8593617 0.8140738 0.8057929
## Cluster 4 0.5952816 0.6660686 0.6320253 0.6612094 0.6339819 0.5849856 0.5880253
## Cluster 5 0.7123190 0.7442845 0.8550302 0.9493276 0.9114612 0.8932500 0.7915560
                 12623
                           12624
                                     12625
                                               12626
                                                         12627
                                                                    12628
                                                                              12629
## Cluster 1 0.5818037 0.4815716 0.3832334 0.2971525 0.2427653 0.2050796 0.1833422
## Cluster 2 0.6541232 0.5775543 0.4333490 0.3535806 0.2665748 0.2137771 0.1838006
## Cluster 3 0.7704000 0.7047007 0.6174482 0.5019319 0.4119688 0.3613149 0.2931376
## Cluster 4 0.5190181 0.4502744 0.3848736 0.3324152 0.2904116 0.2615199 0.2478195
## Cluster 5 0.8730905 0.8385000 0.8051724 0.6540431 0.6068491 0.5159138 0.4639655
                                     12632
                                               12633
                                                         12634
                 12630
                           12631
                                                                    12635
                                                                              12636
## Cluster 1 0.1783912 0.1653156 0.1554867 0.1570013 0.1553170 0.1518369 0.1661207
## Cluster 2 0.1792669 0.1597918 0.1513226 0.1439619 0.1462141 0.1518563 0.1475308
## Cluster 3 0.2697092 0.2529106 0.2399773 0.2258312 0.2127986 0.2126979 0.2166496
## Cluster 4 0.2518484 0.2475523 0.2360686 0.2414946 0.2563285 0.2595090 0.3008628
## Cluster 5 0.4209914 0.3488060 0.3252241 0.3383103 0.3160129 0.3022974 0.3260474
                 12637
                           12638
                                     12639
                                               12640
                                                         12641
                                                                    12642
                                                                              12643
## Cluster 1 0.1672798 0.1849403 0.2465875 0.2967732 0.3562838 0.4387560 0.5312586
## Cluster 2 0.1761584 0.1892698 0.2228328 0.2409150 0.3160088 0.3483402 0.4435601
## Cluster 3 0.2209631 0.2326113 0.2444752 0.2667730 0.3162894 0.3552468 0.4553206
## Cluster 4 0.2862238 0.3527040 0.4517798 0.5468520 0.5566787 0.5841300 0.6950722
## Cluster 5 0.3000603 0.2943664 0.3694655 0.3785259 0.3604483 0.3996293 0.4249526
                           12645
                                     12646
##
                 12644
                                               12647
                                                          12648
                                                                    12649
                                                                              12650
## Cluster 1 0.6031406 0.7035385 0.7430451 0.7255623 0.7551552 0.7100968 0.7078103
## Cluster 2 0.4549091 0.4594282 0.4696305 0.4017918 0.4396100 0.4732463 0.5004575
## Cluster 3 0.5094426 0.5711915 0.6100667 0.6821957 0.6854113 0.7089787 0.7527348
## Cluster 4 0.6417762 0.5679350 0.5716498 0.6057256 0.6043610 0.6235560 0.5856209
## Cluster 5 0.4550431 0.4457629 0.4717931 0.5286034 0.5099181 0.5415905 0.5196034
##
                 12651
                           12652
                                     12653
                                               12654
                                                         12655
                                                                    12656
                                                                              12657
```

```
## Cluster 1 0.7237653 0.6708183 0.6379337 0.6378700 0.6442215 0.6831366 0.7129138
## Cluster 2 0.5042786 0.4779296 0.4456334 0.3975513 0.4439003 0.4980088 0.4730674
## Cluster 3 0.7568780 0.8158397 0.7770028 0.7497489 0.7386000 0.7269277 0.7597404
## Cluster 4 0.5904982 0.5628014 0.5456462 0.5386570 0.5525162 0.5688700 0.6106570
## Cluster 5 0.5785302 0.5789914 0.5452112 0.5388190 0.5157500 0.4788836 0.4729440
                 12658
                           12659
                                     12660
                                                          12662
                                                                    12663
##
                                               12661
## Cluster 1 0.7267560 0.8433130 0.9655000 0.9744655 0.8904934 0.8673289 0.8790955
## Cluster 2 0.5185044 0.5598651 0.6259501 0.6987977 0.8328680 0.8149384 0.7909355
## Cluster 3 0.8099730 0.7867433 0.8036227 0.7799674 0.8044411 0.8091589 0.8539433
## Cluster 4 0.6714296 0.7474440 0.8390469 0.7266209 0.6651552 0.6320975 0.6745126
  Cluster 5 0.4892069 0.5121034 0.5701250 0.5705216 0.5887888 0.7032328 0.7435388
                 12665
                           12666
                                     12667
                                               12668
                                                          12669
                                                                    12670
                                                                              12671
## Cluster 1 0.7921021 0.8471910 0.8068276 0.7537135 0.6659920 0.6367281 0.5705305
## Cluster 2 0.8172522 0.8421320 0.7882317 0.7850499 0.7501408 0.7067859 0.6630674
## Cluster 3 0.8573135 0.9062582 0.8842695 0.8499929 0.8026496 0.7601404 0.7225050
## Cluster 4 0.6279531 0.7078736 0.6732744 0.6015235 0.5520830 0.5295884 0.4818087
## Cluster 5 0.7022672 0.7019483 0.7742500 0.8038966 0.8433319 0.7975733 0.8177284
##
                 12816
                           12817
                                     12818
                                               12819
                                                          12820
                                                                    12821
                                                                              12822
## Cluster 1 0.4264629 0.3315464 0.2593607 0.2261976 0.1976180 0.1730013 0.1595477
## Cluster 2 0.4771026 0.3600821 0.2952698 0.2364692 0.1814370 0.1737830 0.1717977
## Cluster 3 0.6045688 0.4948596 0.4127915 0.3298865 0.2854780 0.2474525 0.2301220
## Cluster 4 0.4062599 0.3579747 0.3173177 0.2593899 0.2492058 0.2447184 0.2415848
## Cluster 5 0.8052500 0.7054526 0.5996379 0.5603621 0.4084698 0.3721121 0.3165517
                 12823
                           12824
                                     12825
                                               12826
                                                          12827
                                                                    12828
## Cluster 1 0.1531737 0.1526353 0.1494668 0.1553382 0.1650066 0.1670716 0.1921406
## Cluster 2 0.1613255 0.1455865 0.1467478 0.1524457 0.1560088 0.1898798 0.2627097
## Cluster 3 0.2140383 0.2090979 0.2013716 0.1979617 0.1982752 0.2012312 0.2194525
## Cluster 4 0.2454007 0.2263899 0.2528989 0.2463791 0.2491047 0.2800397 0.3235379
## Cluster 5 0.2812069 0.2611724 0.2426034 0.2425345 0.2519483 0.2348664 0.2550129
                 12830
                           12831
                                     12832
                                               12833
                                                          12834
                                                                    12835
                                                                              12836
## Cluster 1 0.2272042 0.2969920 0.3746578 0.4300000 0.4776737 0.5609350 0.6152520
## Cluster 2 0.2899032 0.3630616 0.3785015 0.3605894 0.3046921 0.2990088 0.2984663
## Cluster 3 0.2694113 0.2874369 0.3004199 0.3376908 0.3848979 0.4453248 0.4589050
## Cluster 4 0.5122852 0.6282419 0.6630542 0.6132852 0.6138484 0.6205379 0.5048700
## Cluster 5 0.2752845 0.3354784 0.3377586 0.3942716 0.3921983 0.4450474 0.4079009
                           12838
                                     12839
                                               12840
                                                          12841
                 12837
                                                                    12842
## Cluster 1 0.5998820 0.5775477 0.5657454 0.5586737 0.5727122 0.5735570 0.5680663
## Cluster 2 0.2513109 0.2756334 0.2956041 0.3084340 0.2870059 0.3011232 0.3190587
## Cluster 3 0.5112426 0.5408113 0.5279631 0.5389504 0.6029177 0.6040241 0.5873901
## Cluster 4 0.4632238 0.4287653 0.4757870 0.5026029 0.4547726 0.4671841 0.4653646
## Cluster 5 0.4160560 0.4620302 0.3956250 0.3655431 0.4214741 0.4166207 0.3889181
                 12844
                           12845
                                     12846
                                               12847
                                                          12848
                                                                    12849
                                                                              12850
## Cluster 1 0.5061512 0.4825119 0.4960915 0.4875398 0.4683714 0.5395027 0.6530849
## Cluster 2 0.2624633 0.2971848 0.2881349 0.2728710 0.2803607 0.3350938 0.3449443
## Cluster 3 0.5748397 0.5544426 0.5407589 0.5492383 0.5793433 0.6124369 0.7116766
## Cluster 4 0.4188484 0.4488520 0.4110866 0.3604910 0.4862924 0.5570000 0.6211119
## Cluster 5 0.3677241 0.4086552 0.3856250 0.3742802 0.3881853 0.3619569 0.3736207
                           12852
                                     12853
                                               12854
##
                 12851
                                                          12855
                                                                    12856
                                                                              12857
## Cluster 1 0.7658806 0.9180756 0.8612905 0.7779231 0.7984576 0.8218899 0.8565146
## Cluster 2 0.3960029 0.5040762 0.6103226 0.6397889 0.7005513 0.7743490 0.7583431
## Cluster 3 0.7217376 0.7212241 0.7376496 0.7096454 0.6879816 0.6728369 0.7445617
## Cluster 4 0.7702852 0.7476462 0.6653032 0.6345848 0.6138339 0.5795668 0.5827834
## Cluster 5 0.4159138 0.4747371 0.5239009 0.5287629 0.5327328 0.5763405 0.6150216
##
                 12858
                           12859
                                     12860
                                               12861
                                                          12862
                                                                    12863
                                                                              12864
```

```
## Cluster 1 0.9290292 0.8773780 0.8134934 0.7178607 0.6295836 0.5154416 0.3961485
## Cluster 2 0.9223519 0.9662991 0.9374018 0.9400000 0.7865718 0.6625337 0.4865689
## Cluster 3 0.8649092 0.8614043 0.8822894 0.8585887 0.7777504 0.7221532 0.6021418
## Cluster 4 0.6536462 0.6048881 0.6283935 0.5416895 0.5160939 0.4634477 0.4160361
## Cluster 5 0.6828922 0.8073190 0.7769526 0.7944009 0.7891207 0.8768405 0.8115302
                 12865
                           12866
                                     12867
                                               12868
                                                         12869
##
                                                                    12870
## Cluster 1 0.3108183 0.2411485 0.2065358 0.1787056 0.1711963 0.1659496 0.1657095
## Cluster 2 0.3598035 0.2771437 0.2168651 0.1867478 0.1644370 0.1626540 0.1473959
## Cluster 3 0.5025362 0.3902865 0.3233901 0.2815858 0.2435050 0.2207291 0.2084028
## Cluster 4 0.3476751 0.2963682 0.2708051 0.2466209 0.2371733 0.2338231 0.2340253
  Cluster 5 0.6777888 0.5739353 0.5105948 0.3957198 0.3437328 0.3101034 0.2566552
                 12872
                                                         12876
                           12873
                                     12874
                                               12875
                                                                    12877
                                                                              12878
## Cluster 1 0.1564721 0.1573289 0.1591936 0.1656897 0.1656247 0.1888050 0.2272281
## Cluster 2 0.1416481 0.1499179 0.1599912 0.1514487 0.1993871 0.2441877 0.2829795
## Cluster 3 0.2008667 0.1945560 0.1948667 0.1970270 0.2110553 0.2348823 0.2622028
## Cluster 4 0.2131805 0.2352671 0.2443718 0.2399278 0.2810217 0.3659675 0.5024621
## Cluster 5 0.2520474 0.2607155 0.2585733 0.2668319 0.2378362 0.2669138 0.2572414
##
                 12879
                           12880
                                     12881
                                               12882
                                                         12883
                                                                    12884
                                                                              12885
## Cluster 1 0.2906393 0.4091578 0.4653926 0.5298660 0.5489019 0.5247891 0.4999589
## Cluster 2 0.3791525 0.3597595 0.4392463 0.4001202 0.3520557 0.2931085 0.3058798
## Cluster 3 0.2691560 0.3450894 0.3605915 0.3895645 0.4437475 0.4368837 0.5057078
## Cluster 4 0.5892671 0.6998375 0.6839531 0.6436209 0.5885921 0.4947437 0.5167870
## Cluster 5 0.3208060 0.3493793 0.3917457 0.3746293 0.3894009 0.3557069 0.3819009
                 12886
                           12887
                                     12888
                                               12889
                                                          12890
                                                                    12891
## Cluster 1 0.5351432 0.5692560 0.5253740 0.5041936 0.5369178 0.5407812 0.4875981
## Cluster 2 0.2623431 0.2812639 0.2774545 0.2412463 0.2810733 0.3052757 0.2925777
## Cluster 3 0.5069489 0.5383248 0.5335759 0.5560837 0.5570525 0.5792255 0.5676227
## Cluster 4 0.5255235 0.4022419 0.4057329 0.4546318 0.4940397 0.4333610 0.4099747
## Cluster 5 0.3970862 0.4280259 0.4005129 0.3910560 0.4360690 0.4265948 0.4031853
                 12893
                           12894
                                     12895
                                               12896
                                                         12897
                                                                    12898
                                                                              12899
## Cluster 1 0.4681605 0.4944735 0.5036950 0.5057692 0.5419469 0.6443780 0.7789496
## Cluster 2 0.2800323 0.2578182 0.2857859 0.2803167 0.3036158 0.3545660 0.4116012
## Cluster 3 0.5636071 0.5786355 0.5583745 0.5654752 0.6427404 0.7003475 0.7006922
## Cluster 4 0.3713755 0.3675993 0.4301011 0.4972563 0.5728881 0.5814838 0.6643466
## Cluster 5 0.3635517 0.3686121 0.3389483 0.3892888 0.4117328 0.4031121 0.4394397
                 12900
                           12901
                                     12902
                                               12903
                                                         12904
                                                                    12905
                                                                              12906
## Cluster 1 0.8789337 0.8306578 0.7771950 0.7542029 0.7523183 0.7987706 0.8784682
## Cluster 2 0.5073167 0.6291760 0.7130440 0.7300704 0.7764927 0.8050557 0.9236276
## Cluster 3 0.7195830 0.6775078 0.6711418 0.7575546 0.7487121 0.7757291 0.8434922
## Cluster 4 0.6489206 0.6634260 0.5945523 0.5814368 0.5499097 0.5992491 0.6994874
## Cluster 5 0.4939397 0.4939698 0.4713707 0.5369483 0.5634741 0.6523534 0.7079353
                 12907
                           12908
                                     12909
                                               12910
                                                         12911
                                                                    12912
                                                                              12913
## Cluster 1 0.8388130 0.8260570 0.7276353 0.6345610 0.5311233 0.4392122 0.3458077
## Cluster 2 0.9491173 0.9315718 0.8301437 0.7762845 0.6285220 0.5342229 0.3968563
## Cluster 3 0.9075461 0.8539333 0.8313262 0.7314326 0.6862823 0.6126511 0.5269702
## Cluster 4 0.6942996 0.6444079 0.6119531 0.5319422 0.4897870 0.3910253 0.3268159
## Cluster 5 0.7346293 0.7454871 0.8164397 0.8420991 0.7961379 0.7590647 0.6554009
                           12915
##
                 12914
                                     12916
                                               12917
                                                          12918
                                                                    12919
                                                                              12920
## Cluster 1 0.2723183 0.2113448 0.1902175 0.1678660 0.1602122 0.1543103 0.1553143
## Cluster 2 0.2960117 0.2243372 0.1858446 0.1569941 0.1564633 0.1528182 0.1477595
## Cluster 3 0.4384496 0.3442865 0.2828681 0.2479475 0.2291645 0.2212553 0.2054865
## Cluster 4 0.2650794 0.2659025 0.2452563 0.2333394 0.2319928 0.2476065 0.2347040
## Cluster 5 0.5581336 0.5343103 0.4142155 0.3808707 0.3079310 0.2793922 0.2684353
##
                 12921
                           12922
                                     12923
                                               12924
                                                          12925
                                                                    12926
                                                                              12927
```

```
## Cluster 1 0.1560093 0.1643833 0.1600531 0.1613236 0.1843210 0.2207706 0.2907361
## Cluster 2 0.1397273 0.1625220 0.1787713 0.1953284 0.2261290 0.2384106 0.3163021
## Cluster 3 0.1943957 0.1953901 0.2000255 0.2023844 0.2193901 0.2550113 0.2928582
## Cluster 4 0.2364838 0.2616173 0.2706715 0.2963141 0.3435921 0.5192816 0.5843646
## Cluster 5 0.2648534 0.2406681 0.2414095 0.2426336 0.2817198 0.2746638 0.3301034
                 12928
                           12929
                                     12930
                                                         12932
                                                                    12933
##
                                               12931
## Cluster 1 0.4003687 0.4639907 0.4974881 0.4935106 0.5528037 0.5216273 0.5410305
## Cluster 2 0.3492199 0.3613754 0.3378211 0.3604985 0.3544076 0.3267625 0.3415601
## Cluster 3 0.3210227 0.3504652 0.3736128 0.4209106 0.4400397 0.5402227 0.5494638
## Cluster 4 0.6368700 0.5716715 0.5693502 0.5267076 0.5198592 0.5060614 0.4477292
  Cluster 5 0.4089440 0.3922888 0.4382759 0.4733534 0.4660603 0.4534612 0.4091336
                           12936
                                     12937
                                               12938
                                                         12939
                 12935
                                                                    12940
                                                                              12941
## Cluster 1 0.5689721 0.5103674 0.4901194 0.5124775 0.4897029 0.4777639 0.4648289
## Cluster 2 0.3025689 0.2881965 0.3086716 0.2961848 0.3304751 0.3610411 0.2952991
## Cluster 3 0.5782723 0.5755007 0.5763915 0.6031986 0.6013943 0.5831234 0.6224241
## Cluster 4 0.4974621 0.5100144 0.4915018 0.4096462 0.4889242 0.4429711 0.3980108
## Cluster 5 0.3895216 0.4031853 0.4063750 0.3635776 0.3768534 0.3488664 0.4003147
##
                 12942
                           12943
                                     12944
                                               12945
                                                         12946
                                                                    12947
                                                                              12948
## Cluster 1 0.4463926 0.4376194 0.4389257 0.5219005 0.5725703 0.7181578 0.7844881
## Cluster 2 0.3055953 0.3143519 0.2977390 0.3396950 0.3388827 0.3686510 0.4386862
## Cluster 3 0.5706270 0.5702284 0.6009007 0.6331475 0.6530567 0.6482014 0.6708596
## Cluster 4 0.4121480 0.3674874 0.4722780 0.5675271 0.6349386 0.6379783 0.6617617
## Cluster 5 0.3746336 0.3435388 0.3705216 0.3926681 0.4328233 0.4464698 0.4594224
                           12950
                 12949
                                     12951
                                               12952
                                                          12953
                                                                    12954
## Cluster 1 0.7865252 0.7244496 0.7603289 0.6958806 0.7788448 0.8343660 0.8251021
## Cluster 2 0.5641026 0.6005279 0.6480293 0.6871935 0.7294194 0.8036305 0.9436276
## Cluster 3 0.6928071 0.6511447 0.6829504 0.7270993 0.7283546 0.8062043 0.8337972
## Cluster 4 0.6192635 0.5619458 0.5882419 0.5852022 0.6100253 0.6269711 0.6517942
## Cluster 5 0.4877241 0.5449612 0.5856552 0.4874828 0.5709526 0.6760862 0.6823448
##
                 12956
                           12957
                                     12958
                                               12959
                                                         12960
                                                                    12961
                                                                              12962
## Cluster 1 0.7388090 0.6867944 0.6283859 0.5458528 0.4632798 0.3755690 0.2913647
## Cluster 2 0.8178358 0.7719296 0.7367625 0.6140088 0.5044545 0.4115073 0.3331056
## Cluster 3 0.8086908 0.7608426 0.7083418 0.6737149 0.6046397 0.5096596 0.4429348
## Cluster 4 0.5914116 0.5453466 0.5073105 0.4758087 0.4523755 0.3978953 0.3349495
## Cluster 5 0.6914871 0.7370819 0.7840517 0.7723621 0.7083276 0.6536164 0.5558233
                           12964
                                     12965
                                               12966
                                                         12967
                 12963
                                                                    12968
                                                                              12969
## Cluster 1 0.2448488 0.2130836 0.1853382 0.1699920 0.1677918 0.1662759 0.1585438
## Cluster 2 0.2718739 0.2270293 0.1884927 0.1714780 0.1581496 0.1521554 0.1514721
## Cluster 3 0.3692979 0.3206936 0.2848709 0.2639872 0.2415007 0.2288610 0.2210468
## Cluster 4 0.2802383 0.2646643 0.2571155 0.2468014 0.2540975 0.2331733 0.2422310
## Cluster 5 0.5286638 0.3962371 0.3780603 0.3510431 0.3260948 0.2837241 0.2882371
                 12970
                           12971
                                     12972
                                               12973
                                                         12974
                                                                    12975
                                                                              12976
## Cluster 1 0.1559178 0.1610570 0.1618568 0.1676286 0.1750358 0.2267175 0.3049403
## Cluster 2 0.1505337 0.1591378 0.1749472 0.1896862 0.2008915 0.2488416 0.2602903
## Cluster 3 0.2052582 0.2082780 0.2088184 0.2188298 0.2375872 0.2654326 0.2862426
## Cluster 4 0.2638628 0.2554765 0.2750253 0.3112238 0.4166787 0.5074585 0.5402455
## Cluster 5 0.2648534 0.2504871 0.2482069 0.2494181 0.2555991 0.2950431 0.3121250
                           12978
                                               12980
                                                          12981
##
                 12977
                                     12979
                                                                    12982
                                                                              12983
## Cluster 1 0.3398369 0.4511538 0.5496459 0.5860570 0.6182268 0.6351631 0.6083806
## Cluster 2 0.3342111 0.3895806 0.3996569 0.4614428 0.4771584 0.3730821 0.4106510
## Cluster 3 0.3097986 0.3917333 0.4327660 0.4848794 0.5529191 0.5981206 0.5983390
## Cluster 4 0.5831444 0.5551733 0.6489458 0.5638845 0.5021986 0.5380181 0.5376643
## Cluster 5 0.3373190 0.3539569 0.4273060 0.4478664 0.4078276 0.4301121 0.4636724
##
                 12984
                           12985
                                     12986
                                               12987
                                                         12988
                                                                    12989
                                                                              12990
```

```
## Cluster 1 0.6109629 0.5926432 0.6401393 0.6703263 0.6178117 0.5779403 0.5567414
## Cluster 2 0.4054311 0.4371408 0.4623372 0.4667683 0.4554311 0.3997038 0.3980968
## Cluster 3 0.6115759 0.6054738 0.6635106 0.6582440 0.6268879 0.6476681 0.6097872
## Cluster 4 0.5104657 0.4685090 0.4504874 0.4933141 0.4682635 0.4164332 0.4466390
## Cluster 5 0.4528319 0.4285388 0.4475733 0.4919440 0.5002888 0.4276293 0.3802802
                 12991
                           12992
                                     12993
                                               12994
                                                         12995
                                                                    12996
##
                                                                              12997
## Cluster 1 0.5796857 0.5611485 0.5510849 0.6219045 0.7357308 0.8048408 0.7814682
## Cluster 2 0.3518504 0.3740997 0.3788651 0.3611584 0.4057947 0.5223548 0.6620469
## Cluster 3 0.6419943 0.5956199 0.5943617 0.6019702 0.6096028 0.6219574 0.6080298
## Cluster 4 0.4930144 0.4959025 0.5390361 0.5014585 0.7381155 0.7293791 0.6932960
  Cluster 5 0.3867672 0.3861940 0.4238190 0.4649353 0.4321207 0.5014267 0.4855560
                                                         13002
                 12998
                           12999
                                     13000
                                               13001
                                                                    13003
                                                                              13004
## Cluster 1 0.8125517 0.7967905 0.7775093 0.7547825 0.7996910 0.8023329 0.7537122
## Cluster 2 0.6821730 0.7369677 0.7747214 0.7222287 0.7790205 0.7773079 0.7494956
## Cluster 3 0.6817730 0.6791745 0.6599433 0.7565745 0.8080227 0.8877546 0.8176454
## Cluster 4 0.5794368 0.6131986 0.5382816 0.5816570 0.6640469 0.6123899 0.5452780
## Cluster 5 0.4657328 0.4809741 0.5343793 0.5432112 0.6466422 0.7125819 0.7320259
##
                 13005
                           13006
                                     13007
                                               13008
                                                         13009
                                                                    13010
                                                                              13011
## Cluster 1 0.6886061 0.6060875 0.5360305 0.4446857 0.3718064 0.2887865 0.2434271
## Cluster 2 0.7334194 0.6379296 0.5738387 0.5225161 0.4423548 0.3412463 0.2766364
## Cluster 3 0.7587674 0.7109277 0.6586738 0.6002156 0.5468794 0.4425362 0.3762496
## Cluster 4 0.5423574 0.4838303 0.4138773 0.3744621 0.3484440 0.2889134 0.2838628
## Cluster 5 0.7795603 0.7645733 0.7409483 0.6798966 0.6046724 0.5266681 0.4795647
                 13012
                           13013
                                     13014
                                               13015
                                                          13016
                                                                    13017
## Cluster 1 0.2192719 0.1932560 0.1789748 0.1743767 0.1651021 0.1629244 0.1565756
## Cluster 2 0.2352669 0.2054721 0.2048827 0.1779120 0.1552669 0.1510381 0.1540176
## Cluster 3 0.3363475 0.2931660 0.2736128 0.2570057 0.2360752 0.2280496 0.2141319
## Cluster 4 0.2628159 0.2533863 0.2520181 0.2407401 0.2143213 0.2281083 0.2571047
## Cluster 5 0.4036681 0.3595302 0.3262155 0.2974569 0.2665172 0.2751164 0.2484914
##
                 13019
                           13020
                                     13021
                                               13022
                                                         13023
                                                                    13024
                                                                              13025
## Cluster 1 0.1568528 0.1505438 0.1619350 0.1754828 0.2146207 0.2409642 0.3130849
## Cluster 2 0.1511642 0.1622375 0.1826129 0.2065396 0.1983666 0.2165161 0.2636100
## Cluster 3 0.2077574 0.2124213 0.2172936 0.2212780 0.2286255 0.2270057 0.2716525
## Cluster 4 0.2636354 0.2673394 0.2848231 0.3696679 0.4045993 0.4375704 0.4755162
## Cluster 5 0.2349440 0.2288534 0.2289784 0.2278664 0.2752802 0.2674138 0.2860862
                                               13029
                 13026
                           13027
                                     13028
                                                         13030
                                                                    13031
                                                                              13032
## Cluster 1 0.4324244 0.5257798 0.6170225 0.6848660 0.7187454 0.7566061 0.7711114
## Cluster 2 0.3158651 0.3904076 0.4406716 0.5164663 0.5620704 0.5914018 0.4961056
## Cluster 3 0.3293887 0.4096043 0.5074113 0.5873943 0.6070709 0.6521688 0.6931390
## Cluster 4 0.6058087 0.6197509 0.6070722 0.5642455 0.5943105 0.6791877 0.7192022
## Cluster 5 0.3082026 0.3561250 0.4412198 0.4738190 0.4118966 0.4863448 0.4749914
                 13033
                           13034
                                     13035
                                               13036
                                                         13037
                                                                    13038
                                                                              13039
## Cluster 1 0.7478077 0.7493780 0.7311512 0.6863316 0.6172679 0.5444668 0.5460013
## Cluster 2 0.4297654 0.4931730 0.5115543 0.4305337 0.4011173 0.4195455 0.3864839
## Cluster 3 0.7229106 0.7217631 0.7536454 0.7131787 0.6965702 0.6548312 0.6233532
## Cluster 4 0.6539025 0.6070505 0.6074116 0.5540072 0.4895307 0.4911841 0.4743935
## Cluster 5 0.5174741 0.5757284 0.4470474 0.4051207 0.4467457 0.4688060 0.4480172
                           13041
##
                 13040
                                     13042
                                               13043
                                                          13044
                                                                    13045
                                                                              13046
## Cluster 1 0.5359668 0.5762507 0.5713568 0.6268780 0.6818408 0.7381101 0.7174005
## Cluster 2 0.3724076 0.3992639 0.4253695 0.4352610 0.4904604 0.5273138 0.5807713
## Cluster 3 0.6138355 0.6103830 0.6377206 0.5819177 0.5991660 0.5942809 0.6138057
## Cluster 4 0.5519928 0.5073971 0.5185415 0.6446823 0.6876390 0.6265993 0.5476029
## Cluster 5 0.3940991 0.4109741 0.4495388 0.4496293 0.4959440 0.5063879 0.4756940
##
                 13047
                           13048
                                     13049
                                               13050
                                                         13051
                                                                    13052
                                                                              13053
```

```
## Cluster 1 0.7511751 0.7770663 0.7767825 0.8475650 0.8552188 0.7557215 0.6834562
## Cluster 2 0.6630704 0.7164545 0.7267771 0.8354223 0.8960029 0.8852082 0.7851730
## Cluster 3 0.6315844 0.7120482 0.7434014 0.8214766 0.9379447 0.8315660 0.7756752
## Cluster 4 0.5881191 0.5992022 0.5435740 0.6039675 0.6605271 0.6358051 0.5383863
## Cluster 5 0.5157371 0.5234526 0.5665862 0.6098405 0.7480560 0.7373276 0.7450172
                 13054
                           13055
                                     13056
                                                          13058
                                                                    13059
##
                                               13057
                                                                              13060
## Cluster 1 0.5874775 0.4944894 0.4093276 0.3036552 0.2286446 0.2009098 0.1825332
## Cluster 2 0.6887185 0.5469238 0.4321935 0.3414633 0.2376598 0.1993578 0.1738240
## Cluster 3 0.7177050 0.6304482 0.5705163 0.4448809 0.3631007 0.3211887 0.2628738
## Cluster 4 0.5060000 0.4597220 0.3685054 0.3048773 0.2964332 0.2587004 0.2488881
  Cluster 5 0.7549612 0.7483707 0.6738362 0.6396767 0.5218362 0.4672888 0.4035388
                                     13063
                 13061
                           13062
                                               13064
                                                          13065
                                                                    13066
                                                                              13067
## Cluster 1 0.1619960 0.1524483 0.1535027 0.1489881 0.1507241 0.1687454 0.1665424
## Cluster 2 0.1630499 0.1581848 0.1459062 0.1462434 0.1420762 0.1397067 0.1519267
## Cluster 3 0.2335489 0.2119390 0.2001617 0.1943447 0.1888525 0.1901021 0.1941092
## Cluster 4 0.2233321 0.2213610 0.2333032 0.2389350 0.2373935 0.2602708 0.2523646
## Cluster 5 0.3755474 0.2996681 0.2727802 0.2432629 0.2567716 0.2296250 0.2466034
##
                 13068
                           13069
                                     13070
                                               13071
                                                          13072
                                                                    13073
                                                                              13074
## Cluster 1 0.1652016 0.1766485 0.2218515 0.3762599 0.5389125 0.5146220 0.5034576
## Cluster 2 0.1774457 0.2437302 0.3047507 0.4219824 0.4516833 0.4366217 0.3277009
## Cluster 3 0.1946440 0.2295433 0.2853149 0.3208128 0.3769688 0.4121305 0.4433915
## Cluster 4 0.3069819 0.4236209 0.6439819 0.8720830 0.8253249 0.6922888 0.5518700
## Cluster 5 0.2357198 0.2442112 0.2485345 0.3577328 0.4503750 0.4934698 0.4193966
                 13075
                           13076
                                     13077
                                               13078
                                                          13079
                                                                    13080
## Cluster 1 0.5247984 0.5324072 0.4505491 0.4583700 0.4191300 0.3996141 0.4076777
## Cluster 2 0.2786246 0.2692991 0.2854575 0.2801202 0.2444457 0.2221290 0.2437537
## Cluster 3 0.4732667 0.4416199 0.4407035 0.4624057 0.4599163 0.4787844 0.4917404
## Cluster 4 0.4938087 0.4388014 0.4361408 0.3712780 0.3690542 0.3858989 0.3603610
## Cluster 5 0.3634526 0.3249784 0.3280948 0.3212716 0.3025172 0.3042716 0.3406422
##
                 13082
                           13083
                                     13084
                                               13085
                                                          13086
                                                                    13087
                                                                              13088
## Cluster 1 0.4300782 0.4485199 0.4101419 0.4379443 0.4304788 0.4314125 0.4903408
## Cluster 2 0.2553959 0.2619971 0.2525308 0.2395953 0.2505425 0.2378270 0.2725161
## Cluster 3 0.4979376 0.5514298 0.5272426 0.4836823 0.4573376 0.4929816 0.5498894
## Cluster 4 0.3370361 0.3709603 0.4138412 0.3519242 0.3624801 0.3674116 0.4681155
## Cluster 5 0.3101724 0.3522716 0.3312845 0.3096164 0.3109871 0.3121681 0.3323621
                           13090
                                     13091
                                               13092
                                                          13093
                 13089
                                                                    13094
                                                                              13095
## Cluster 1 0.4995000 0.6136830 0.8216340 0.8974629 0.8698966 0.7181698 0.7330186
## Cluster 2 0.2933636 0.3204663 0.3505982 0.5166510 0.6506012 0.6767889 0.6827449
## Cluster 3 0.5842638 0.6760766 0.6400340 0.6520638 0.6372355 0.6172525 0.6029844
## Cluster 4 0.5164368 0.5961155 0.7080903 0.6555740 0.6037329 0.5976751 0.6063466
## Cluster 5 0.3875000 0.3904871 0.3981681 0.4709397 0.4997457 0.4814784 0.4693578
                 13096
                           13097
                                     13098
                                               13099
                                                          13100
                                                                    13101
                                                                              13102
## Cluster 1 0.7078170 0.7042507 0.8143992 0.8938369 0.8217507 0.7062095 0.5827255
## Cluster 2 0.7195161 0.7922962 0.9183519 0.9969941 0.9938035 0.9021056 0.6859883
## Cluster 3 0.6805305 0.6868199 0.8331404 0.8982950 0.8940638 0.8356596 0.7493943
## Cluster 4 0.5598412 0.5955668 0.6654332 0.6752238 0.6168773 0.5343935 0.5084765
## Cluster 5 0.5172457 0.5642198 0.6061336 0.7554483 0.7379655 0.7943147 0.7158276
                                     13105
##
                 13103
                           13104
                                               13106
                                                          13107
                                                                    13108
                                                                              13109
## Cluster 1 0.4918554 0.3908820 0.2731844 0.2160186 0.1830995 0.1627095 0.1566167
## Cluster 2 0.5427009 0.3912786 0.2781320 0.2099736 0.1811848 0.1526305 0.1553431
## Cluster 3 0.6860128 0.5425972 0.4384738 0.3396043 0.2785078 0.2479986 0.2243064
## Cluster 4 0.4114332 0.3529134 0.2875596 0.2601661 0.2547545 0.2383032 0.2110325
## Cluster 5 0.7492241 0.6723664 0.5578362 0.4530043 0.4182198 0.3774741 0.3370776
##
                 13110
                           13111
                                     13112
                                               13113
                                                          13114
                                                                    13115
                                                                              13116
```

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## Cluster 1 0.1583276 0.1620186 0.1476220 0.1508833 0.1521764 0.1617042 0.1584589
## Cluster 2 0.1391760 0.1485630 0.1389413 0.1320088 0.1359619 0.1663255 0.1945367
## Cluster 3 0.2065972 0.1984993 0.1951773 0.1941064 0.1978241 0.1931021 0.2030738
## Cluster 4 0.2254079 0.2392780 0.2168592 0.2351588 0.2695199 0.2693069 0.3140108
## Cluster 5 0.3011810 0.2533190 0.2408147 0.2268750 0.2190948 0.2418534 0.2314698
                                               13120
                                                         13121
                                                                    13122
                 13117
                           13118
                                     13119
## Cluster 1 0.1890385 0.2690292 0.4074111 0.5213554 0.5253846 0.5021061 0.5312851
## Cluster 2 0.2562258 0.3257742 0.4358065 0.4610499 0.4399326 0.3367801 0.2843724
## Cluster 3 0.2431078 0.2716369 0.3538936 0.4102922 0.4158468 0.4653333 0.4329433
## Cluster 4 0.4326715 0.6144440 0.7552202 0.7784801 0.6630108 0.5741769 0.4715704
  Cluster 5 0.2361509 0.2542888 0.3268147 0.4129009 0.4056724 0.3878405 0.3538405
                                     13126
                                               13127
                 13124
                           13125
                                                         13128
                                                                    13129
                                                                              13130
## Cluster 1 0.4920358 0.4508541 0.4505915 0.4213607 0.3861844 0.3662387 0.4000358
## Cluster 2 0.2426481 0.2261496 0.1993226 0.2165660 0.1911349 0.2205689 0.2285191
## Cluster 3 0.4732780 0.4491362 0.4518823 0.4300014 0.4103035 0.4700511 0.4540695
## Cluster 4 0.3907870 0.3764765 0.3633357 0.3402780 0.3693827 0.3968989 0.4118123
## Cluster 5 0.3279009 0.3100129 0.2986940 0.2674052 0.2658621 0.3197284 0.2863405
##
                 13131
                           13132
                                     13133
                                               13134
                                                         13135
                                                                    13136
                                                                              13137
## Cluster 1 0.4171671 0.3957003 0.3943117 0.4214894 0.4242162 0.4480093 0.5522188
## Cluster 2 0.2698299 0.2440293 0.2062757 0.2345367 0.2570968 0.2541261 0.3045894
## Cluster 3 0.4743404 0.4433418 0.4521461 0.4387716 0.4830085 0.5349546 0.6272199
## Cluster 4 0.4117726 0.4311805 0.3648014 0.3583863 0.4179639 0.4410505 0.5477834
## Cluster 5 0.3090905 0.3245862 0.2793103 0.2893319 0.3129052 0.2975517 0.3054009
                 13138
                           13139
                                     13140
                                               13141
                                                          13142
                                                                    13143
## Cluster 1 0.6874443 0.8122294 0.8203355 0.8096751 0.7420570 0.7642560 0.7119536
## Cluster 2 0.3453812 0.3670293 0.4984135 0.5374897 0.6533666 0.6747243 0.7261056
## Cluster 3 0.6815745 0.7222681 0.7258809 0.6676851 0.6154851 0.6174950 0.6441645
## Cluster 4 0.5727184 0.7028592 0.7388014 0.6762852 0.6018845 0.6382130 0.5334440
## Cluster 5 0.3836595 0.4006681 0.4309655 0.4702414 0.4448621 0.4292759 0.4080086
##
                 13145
                           13146
                                     13147
                                               13148
                                                         13149
                                                                    13150
                                                                              13151
## Cluster 1 0.7460053 0.8255557 0.8584721 0.7982944 0.7341419 0.5917599 0.4996764
## Cluster 2 0.8311525 0.9124428 0.9398592 0.9757889 0.9215161 0.7454076 0.5599032
## Cluster 3 0.7523191 0.8238567 0.8995589 0.8621191 0.8148610 0.7342227 0.6659730
## Cluster 4 0.6046570 0.6973394 0.6901011 0.6611119 0.5156931 0.4835848 0.4109856
## Cluster 5 0.5084483 0.6510905 0.7165776 0.7094871 0.6810474 0.6762457 0.7284784
                           13153
                 13152
                                     13154
                                               13155
                                                         13156
                                                                    13157
                                                                              13158
## Cluster 1 0.3521711 0.2752586 0.2227334 0.1919231 0.1657109 0.1614019 0.1527241
## Cluster 2 0.4243196 0.2920235 0.2419062 0.1842141 0.1703284 0.1540616 0.1547918
## Cluster 3 0.5464624 0.4535234 0.3574922 0.2822936 0.2406113 0.2237943 0.2031986
## Cluster 4 0.3637004 0.3087762 0.2952599 0.2622274 0.2446931 0.2320289 0.2226823
## Cluster 5 0.6046164 0.5088621 0.4521853 0.4107845 0.3416681 0.3111767 0.2799095
                           13160
                                     13161
                                               13162
                                                         13163
                 13159
                                                                    13164
                                                                              13165
## Cluster 1 0.1545531 0.1491565 0.1518488 0.1614947 0.1648329 0.1625836 0.1802971
## Cluster 2 0.1443460 0.1406452 0.1386364 0.1556129 0.1620029 0.1996804 0.2940469
## Cluster 3 0.1974043 0.1938936 0.1866582 0.1890723 0.1860582 0.2024369 0.2361801
## Cluster 4 0.2279206 0.2106282 0.2283610 0.2594296 0.2615199 0.3088700 0.4549025
## Cluster 5 0.2571164 0.2557672 0.2280690 0.2212586 0.2203922 0.2262500 0.2783836
##
                 13166
                           13167
                                     13168
                                               13169
                                                          13170
                                                                    13171
                                                                              13172
## Cluster 1 0.2347878 0.4040716 0.5807878 0.5545544 0.5023090 0.5279748 0.5089271
## Cluster 2 0.3379648 0.4310704 0.4391349 0.4606979 0.3525425 0.2930352 0.2833519
## Cluster 3 0.3033177 0.3749390 0.4383872 0.4517390 0.4359986 0.4110794 0.4061206
## Cluster 4 0.6637437 0.7858989 0.8327653 0.6554801 0.5554513 0.4854585 0.4690830
## Cluster 5 0.2615733 0.3575431 0.3610733 0.4303103 0.4030690 0.3997198 0.3297241
##
                 13173
                           13174
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                                               13176
                                                         13177
                                                                    13178
                                                                              13179
```

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## Cluster 1 0.4502255 0.4667175 0.4008249 0.4235968 0.4131631 0.4313289 0.4602374
## Cluster 2 0.2598680 0.2393255 0.2056481 0.2179677 0.1932023 0.2136305 0.2478358
## Cluster 3 0.4296426 0.4363801 0.4752128 0.4610014 0.4794227 0.5104213 0.5349348
## Cluster 4 0.4157834 0.3696137 0.3670072 0.3616859 0.3911264 0.4158412 0.4238014
## Cluster 5 0.3250517 0.3176681 0.3284267 0.2806897 0.2792155 0.2903664 0.3280086
                 13180
                                     13182
                                               13183
                                                         13184
                                                                    13185
##
                           13181
## Cluster 1 0.4184430 0.3919416 0.3997706 0.4525332 0.4554085 0.5212918 0.6100756
## Cluster 2 0.2360704 0.2173724 0.2188974 0.2498211 0.2586862 0.2901026 0.3368270
## Cluster 3 0.4838766 0.4748979 0.4935929 0.5361972 0.5789660 0.6433830 0.7199489
## Cluster 4 0.4061733 0.3331047 0.3490650 0.3985560 0.4589025 0.5675776 0.6304260
  Cluster 5 0.3080000 0.3249267 0.3382888 0.3396681 0.3394914 0.3671336 0.3850690
                 13187
                           13188
                                     13189
                                               13190
                                                         13191
                                                                    13192
                                                                              13193
## Cluster 1 0.7534324 0.9180146 0.8770146 0.7554284 0.7397029 0.7457891 0.7098541
## Cluster 2 0.4065748 0.4948094 0.5455191 0.5708240 0.7103548 0.8078328 0.7878240
## Cluster 3 0.6949901 0.6600752 0.6640199 0.6189589 0.6464326 0.6028028 0.6296340
## Cluster 4 0.7044332 0.7094116 0.6612058 0.6249928 0.5931480 0.5987220 0.6130542
## Cluster 5 0.4003362 0.4228922 0.4739612 0.4861638 0.5273750 0.5228836 0.5910043
##
                 13194
                           13195
                                     13196
                                               13197
                                                         13198
                                                                    13199
                                                                              13200
## Cluster 1 0.8032706 0.9491936 0.8236538 0.7806804 0.6087467 0.4951167 0.3744668
## Cluster 2 0.8323988 0.9665806 0.9058592 0.8906745 0.7453490 0.5810029 0.4250704
## Cluster 3 0.7399418 0.8413362 0.8542695 0.8259716 0.7484979 0.6736355 0.5495475
## Cluster 4 0.6423971 0.6833502 0.6311227 0.5665126 0.4739097 0.4122563 0.3577690
## Cluster 5 0.6620345 0.6789828 0.6833319 0.7485948 0.7681207 0.7341983 0.6069267
                 13201
                           13202
                                     13203
                                               13204
                                                          13205
                                                                    13206
## Cluster 1 0.2761260 0.2219523 0.1860225 0.1749191 0.1610955 0.1528528 0.1550981
## Cluster 2 0.2929853 0.2293079 0.1866481 0.1603900 0.1514370 0.1429150 0.1456305
## Cluster 3 0.4335787 0.3540369 0.2790199 0.2550440 0.2259348 0.2118922 0.1954993
## Cluster 4 0.3049603 0.2911480 0.2482419 0.2405704 0.2459819 0.2443466 0.2444332
## Cluster 5 0.5311724 0.4953017 0.4583966 0.3905043 0.3197457 0.2701078 0.2487586
##
                 13208
                           13209
                                     13210
                                               13211
                                                         13212
                                                                    13213
                                                                              13214
## Cluster 1 0.1515557 0.1534085 0.1548037 0.1601446 0.1692480 0.1864363 0.2418634
## Cluster 2 0.1391730 0.1375806 0.1427771 0.1437273 0.1955660 0.2590059 0.3205073
## Cluster 3 0.1926738 0.1881291 0.1927801 0.1963348 0.2057645 0.2374681 0.3075702
## Cluster 4 0.2441444 0.2425812 0.2756643 0.2655921 0.3241119 0.4619964 0.6556606
## Cluster 5 0.2388190 0.2375172 0.2193362 0.2391810 0.2285690 0.2402414 0.2651379
                                     13217
                                               13218
                                                         13219
                 13215
                           13216
                                                                    13220
                                                                              13221
## Cluster 1 0.3894005 0.5402162 0.5458674 0.5293515 0.5062851 0.5003674 0.4987878
## Cluster 2 0.4117214 0.4459589 0.4615279 0.3534076 0.3359120 0.2610499 0.2872405
## Cluster 3 0.3703603 0.4128099 0.4545277 0.4596142 0.4401220 0.4312809 0.4616128
## Cluster 4 0.7932888 0.8421480 0.7528917 0.5355451 0.4564368 0.4353032 0.3860289
## Cluster 5 0.3639095 0.4189353 0.4126552 0.4178534 0.3711767 0.3437802 0.3620819
                 13222
                           13223
                                     13224
                                               13225
                                                         13226
                                                                    13227
                                                                              13228
## Cluster 1 0.4500199 0.4367692 0.4018117 0.4032613 0.4180676 0.4272268 0.3968475
## Cluster 2 0.2413021 0.2350293 0.2466979 0.2212111 0.2204897 0.2603343 0.2222287
## Cluster 3 0.4685915 0.4295546 0.4627007 0.4455007 0.4181135 0.4961163 0.4527007
## Cluster 4 0.3773755 0.3679458 0.3384079 0.3657473 0.3936715 0.3913141 0.4210542
## Cluster 5 0.3130431 0.2917371 0.2918707 0.3185388 0.2986724 0.3333707 0.3381853
##
                 13229
                           13230
                                     13231
                                               13232
                                                          13233
                                                                    13234
                                                                              13235
## Cluster 1 0.3636950 0.3735769 0.4004562 0.4653223 0.5197241 0.6413607 0.7825782
## Cluster 2 0.2507830 0.2103021 0.2245220 0.2548592 0.3047830 0.3055924 0.3351202
## Cluster 3 0.4865461 0.4703319 0.5108440 0.5873702 0.6407262 0.7054468 0.6683447
## Cluster 4 0.3657942 0.3586137 0.3618809 0.4431805 0.5070433 0.6431516 0.6575126
## Cluster 5 0.3334655 0.3210991 0.3270819 0.3476810 0.3622716 0.3698621 0.3938836
##
                 13236
                           13237
                                     13238
                                               13239
                                                         13240
                                                                    13241
                                                                              13242
```

```
## Cluster 1 0.8687334 0.8152347 0.6886472 0.7166034 0.6899562 0.7308780 0.7721976
## Cluster 2 0.4654751 0.5759443 0.5580088 0.6938358 0.7413988 0.7712874 0.8142053
## Cluster 3 0.6886979 0.6651333 0.6067149 0.6015262 0.6155773 0.6503348 0.7511376
## Cluster 4 0.6656462 0.6615451 0.5913141 0.5337870 0.4962347 0.5353105 0.6177112
## Cluster 5 0.4362457 0.4457198 0.5276681 0.5339655 0.5001207 0.5004483 0.6107457
                           13244
                                     13245
##
                 13243
                                               13246
                                                         13247
                                                                    13248
## Cluster 1 0.8382321 0.8139536 0.7227029 0.5936883 0.4765292 0.3907759 0.2975743
## Cluster 2 0.9459648 0.9318680 0.8201202 0.7316070 0.6219179 0.4867654 0.3528944
## Cluster 3 0.8195007 0.8527759 0.8008709 0.7543376 0.6673277 0.5895986 0.4677064
## Cluster 4 0.6627762 0.6703827 0.5987256 0.5007112 0.4775271 0.3967545 0.3139711
  Cluster 5 0.8234784 0.7983362 0.7880948 0.7255388 0.8109871 0.6828362 0.6101034
                           13251
                                     13252
                 13250
                                               13253
                                                         13254
                                                                    13255
                                                                              13256
## Cluster 1 0.2303700 0.1941963 0.1701844 0.1617520 0.1550080 0.1509536 0.1510796
## Cluster 2 0.2792111 0.2014311 0.1648299 0.1476129 0.1480645 0.1418387 0.1353402
## Cluster 3 0.3708979 0.2964426 0.2564809 0.2377589 0.2139943 0.2098695 0.2014979
## Cluster 4 0.2903357 0.2626570 0.2513466 0.2355162 0.2184801 0.2298520 0.2189242
## Cluster 5 0.5527759 0.4731336 0.3981983 0.3505991 0.2907371 0.2699828 0.2586034
##
                 13257
                           13258
                                     13259
                                               13260
                                                         13261
                                                                    13262
                                                                              13263
## Cluster 1 0.1539191 0.1636114 0.1768528 0.1628660 0.1870477 0.2503886 0.4177387
## Cluster 2 0.1403695 0.1417625 0.1559003 0.1809120 0.2416833 0.2645572 0.3697742
## Cluster 3 0.1939177 0.1887234 0.1981333 0.2173716 0.2400397 0.2891418 0.3259532
## Cluster 4 0.2151588 0.2205632 0.2410144 0.3200866 0.4368845 0.5952166 0.8167834
## Cluster 5 0.2626164 0.2281422 0.2346552 0.2296379 0.2352629 0.2432328 0.3623147
                 13264
                           13265
                                     13266
                                               13267
                                                          13268
                                                                    13269
## Cluster 1 0.5664854 0.5530013 0.5284257 0.5487533 0.5146088 0.4806910 0.4650172
## Cluster 2 0.4495543 0.4582962 0.3408739 0.3001173 0.2857243 0.2734487 0.2473079
## Cluster 3 0.3894567 0.4158355 0.4549518 0.4610241 0.4594071 0.4674340 0.5043404
## Cluster 4 0.7994693 0.7622491 0.6651733 0.4640614 0.4219964 0.3905487 0.3361877
## Cluster 5 0.4237716 0.3937759 0.3947845 0.3363707 0.3653060 0.3797543 0.3300905
                 13271
                           13272
                                     13273
                                               13274
                                                         13275
                                                                    13276
                                                                              13277
## Cluster 1 0.4398382 0.3850769 0.3826406 0.4058223 0.4230690 0.3989814 0.4177984
## Cluster 2 0.2218827 0.1980235 0.2318651 0.2553695 0.2371261 0.2230147 0.2464692
## Cluster 3 0.4826085 0.4424582 0.4486766 0.4841631 0.5021050 0.4459887 0.4583546
## Cluster 4 0.3528845 0.3363032 0.3286173 0.3306931 0.3346209 0.3482130 0.3433682
## Cluster 5 0.3459009 0.3334784 0.3554224 0.3172457 0.3285733 0.3419526 0.3235905
                           13279
                                     13280
                                                         13282
                 13278
                                               13281
                                                                    13283
                                                                              13284
## Cluster 1 0.4184867 0.4004244 0.4206777 0.4772772 0.5940438 0.7266220 0.7779443
## Cluster 2 0.2376979 0.2404252 0.2358563 0.3165308 0.3250821 0.3375660 0.4037155
## Cluster 3 0.4577858 0.4932000 0.5251390 0.5540170 0.6012908 0.6596227 0.7037064
## Cluster 4 0.3628375 0.3772310 0.4276390 0.5223682 0.5606787 0.6605523 0.6387148
## Cluster 5 0.2944526 0.3022414 0.3460302 0.3963707 0.3407888 0.3620129 0.3952241
                 13285
                           13286
                                     13287
                                               13288
                                                         13289
                                                                    13290
                                                                              13291
## Cluster 1 0.7826286 0.7661671 0.7083647 0.6814947 0.6680027 0.7809310 0.8442215
## Cluster 2 0.5140821 0.5839912 0.6355367 0.6031144 0.6961320 0.7253167 0.9123754
## Cluster 3 0.6398837 0.6290738 0.6900539 0.6476128 0.6678043 0.6890383 0.8580355
## Cluster 4 0.6073321 0.5484332 0.6378628 0.5900578 0.5632419 0.5621841 0.6456282
## Cluster 5 0.4677974 0.4304267 0.4506940 0.3967759 0.4648491 0.5588707 0.7111897
                           13293
                                               13295
                                                          13296
##
                 13292
                                     13294
                                                                    13297
                                                                              13298
## Cluster 1 0.8150013 0.7452427 0.6372891 0.5767122 0.4789682 0.3624642 0.2754257
## Cluster 2 0.9016774 0.8204604 0.7066452 0.6344927 0.4910147 0.3671378 0.3030088
## Cluster 3 0.8156468 0.7820170 0.7450142 0.6868113 0.6395291 0.4989348 0.4196014
## Cluster 4 0.6209350 0.5465451 0.5261480 0.4517256 0.4123646 0.3315307 0.2897545
## Cluster 5 0.7652802 0.7619871 0.7281897 0.7643793 0.6879741 0.5773750 0.5515690
##
                 13299
                           13300
                                     13301
                                               13302
                                                         13303
                                                                    13304
                                                                              13305
```

```
## Cluster 1 0.2416180 0.1959456 0.1800623 0.1719934 0.1610968 0.1584377 0.1586698
## Cluster 2 0.2330235 0.1972991 0.1635601 0.1535279 0.1490587 0.1420059 0.1390968
## Cluster 3 0.3377433 0.2990738 0.2516468 0.2331305 0.2212099 0.2034340 0.2024142
## Cluster 4 0.2801516 0.2539711 0.2461516 0.2371516 0.2199747 0.2192744 0.2390000
## Cluster 5 0.4755172 0.4244914 0.3809569 0.3415259 0.2953793 0.2622629 0.2722974
                 13306
                           13307
                                     13308
                                               13309
                                                         13310
##
                                                                    13311
## Cluster 1 0.1602706 0.1666021 0.1662069 0.1828143 0.1987401 0.2317891 0.3086167
## Cluster 2 0.1425073 0.1500850 0.1732023 0.2055191 0.2104604 0.2371261 0.2719912
## Cluster 3 0.1957688 0.1967234 0.2078298 0.2301050 0.2399277 0.2655305 0.2741475
## Cluster 4 0.2300217 0.2494729 0.3000397 0.3358845 0.3749783 0.4765307 0.5656173
  Cluster 5 0.2347802 0.2339741 0.2319224 0.2395345 0.2362198 0.2930129 0.3174741
                 13313
                           13314
                                     13315
                                               13316
                                                         13317
                                                                    13318
                                                                              13319
## Cluster 1 0.4003912 0.5138714 0.6385875 0.6617414 0.6930186 0.6821989 0.6308568
## Cluster 2 0.3597419 0.3823959 0.4518622 0.4979413 0.4408035 0.4292229 0.4634897
## Cluster 3 0.3347617 0.3819291 0.4766128 0.5247220 0.5850255 0.6349589 0.6111390
## Cluster 4 0.6235451 0.7108412 0.6159061 0.5759025 0.5830469 0.5138556 0.5337256
## Cluster 5 0.2912457 0.3055647 0.3651250 0.4011078 0.4522155 0.4321293 0.4360905
##
                 13320
                           13321
                                     13322
                                               13323
                                                         13324
                                                                    13325
                                                                              13326
## Cluster 1 0.5992812 0.6038050 0.6054496 0.6279005 0.5923276 0.5375504 0.5474072
## Cluster 2 0.4603754 0.4843490 0.4605161 0.4736804 0.4554457 0.3906686 0.3891026
## Cluster 3 0.6103631 0.6169475 0.6791603 0.6809135 0.6603872 0.6187730 0.5983915
## Cluster 4 0.4830505 0.4450722 0.4897365 0.5222563 0.4889819 0.4418520 0.4439711
## Cluster 5 0.4321250 0.4787457 0.4888966 0.4603578 0.4289267 0.4064569 0.4121552
                 13327
                           13328
                                     13329
                                               13330
                                                          13331
                                                                    13332
## Cluster 1 0.5231989 0.4896393 0.5515703 0.5778833 0.6965411 0.7650836 0.7725756
## Cluster 2 0.3842669 0.3431144 0.3694047 0.3860645 0.4259208 0.5475806 0.6541701
## Cluster 3 0.6122610 0.6084213 0.5889546 0.5987631 0.6278099 0.6554227 0.7186043
## Cluster 4 0.4611191 0.4477365 0.5169856 0.6143538 0.6829856 0.7114477 0.6405957
## Cluster 5 0.4153448 0.4036121 0.4276983 0.3616552 0.3503836 0.4722759 0.4599353
##
                 13334
                           13335
                                     13336
                                               13337
                                                         13338
                                                                    13339
                                                                              13340
## Cluster 1 0.7875146 0.7519814 0.7566804 0.7344973 0.7598369 0.7674469 0.7217785
## Cluster 2 0.6544956 0.7218094 0.7216628 0.7509267 0.8257507 0.7818504 0.7467243
## Cluster 3 0.6856695 0.7281617 0.6836014 0.7034610 0.7497135 0.8180213 0.8642539
## Cluster 4 0.5727220 0.5613935 0.5355596 0.5314910 0.6022130 0.5836498 0.4843105
## Cluster 5 0.4589569 0.4978707 0.4941595 0.5568621 0.5821509 0.6620991 0.6679397
                           13342
                                     13343
                                               13344
                                                         13345
                 13341
                                                                    13346
                                                                              13347
## Cluster 1 0.6568196 0.6184801 0.5101154 0.4279576 0.3375225 0.2770570 0.2356419
## Cluster 2 0.7219384 0.6587214 0.5446217 0.4564164 0.3662815 0.2872170 0.2379648
## Cluster 3 0.7820610 0.6746794 0.6553376 0.5802199 0.5012454 0.4259915 0.3515078
## Cluster 4 0.4838592 0.4732094 0.4308339 0.3887292 0.3163430 0.3153538 0.2808412
## Cluster 5 0.7115733 0.7017500 0.7410216 0.6612112 0.5982845 0.5422629 0.4330302
                 13348
                           13349
                                     13350
                                               13351
                                                         13352
                                                                    13353
                                                                              13354
## Cluster 1 0.2157732 0.1902281 0.1808024 0.1691472 0.1640225 0.1651247 0.1613501
## Cluster 2 0.2207625 0.1945279 0.1825543 0.1839912 0.1610762 0.1621701 0.1628798
## Cluster 3 0.3003603 0.2711844 0.2453021 0.2231532 0.2172213 0.2105333 0.2054766
## Cluster 4 0.2631444 0.2354946 0.2279711 0.2431191 0.2412130 0.2190144 0.2312635
## Cluster 5 0.3848491 0.3898578 0.3628233 0.2720216 0.2579612 0.2462328 0.2385086
                                     13357
                                                         13359
##
                 13355
                           13356
                                               13358
                                                                    13360
                                                                              13361
## Cluster 1 0.1615000 0.1546963 0.1642533 0.1866989 0.2178806 0.2739682 0.3304072
## Cluster 2 0.1619912 0.1738299 0.1836862 0.2090968 0.2282375 0.2626070 0.3113402
## Cluster 3 0.1964837 0.1953915 0.2191518 0.2199986 0.2283716 0.2274879 0.2794695
## Cluster 4 0.2560830 0.2779350 0.3173502 0.4025162 0.4463971 0.5290758 0.5585668
## Cluster 5 0.2506940 0.2179310 0.2224741 0.2364440 0.2616897 0.3005474 0.3295388
##
                 13362
                           13363
                                     13364
                                               13365
                                                         13366
                                                                    13367
                                                                              13368
```

```
## Cluster 1 0.4245928 0.5294058 0.6179231 0.6780902 0.7512666 0.7506910 0.7439284
## Cluster 2 0.3316804 0.3882405 0.4608886 0.4892463 0.4686745 0.5280792 0.5374516
## Cluster 3 0.3531745 0.4342397 0.5486128 0.6250170 0.6570908 0.6840482 0.7521915
## Cluster 4 0.6141480 0.5900217 0.5830181 0.6294404 0.5583610 0.6034440 0.5590758
## Cluster 5 0.2972241 0.3403922 0.4478233 0.5006724 0.4810733 0.5423060 0.5088448
                 13369
                                               13372
                                                         13373
##
                           13370
                                     13371
                                                                    13374
## Cluster 1 0.7159377 0.8054324 0.8081273 0.7279403 0.6731963 0.6046300 0.5970716
## Cluster 2 0.5264868 0.5252845 0.5951642 0.5357185 0.4603021 0.4263460 0.4515982
## Cluster 3 0.8102298 0.8230099 0.8648170 0.8001418 0.7629560 0.7037489 0.6907191
## Cluster 4 0.6423935 0.6728159 0.5385451 0.5484043 0.5256245 0.5670325 0.6311516
  Cluster 5 0.5063664 0.4556724 0.4577026 0.4650948 0.4860647 0.4156250 0.3941164
                           13377
                                     13378
                 13376
                                               13379
                                                         13380
                                                                    13381
                                                                              13382
## Cluster 1 0.5908236 0.6206008 0.6332653 0.6912401 0.7519032 0.7335597 0.7339562
## Cluster 2 0.4595367 0.4405601 0.4152786 0.4566862 0.5118915 0.6109472 0.6748387
## Cluster 3 0.6827206 0.6785844 0.6474837 0.6389149 0.6459220 0.6635688 0.6594752
## Cluster 4 0.6148412 0.5614043 0.5736895 0.6388989 0.6491191 0.6562708 0.5755848
## Cluster 5 0.3914655 0.3924741 0.4495603 0.4575733 0.4513621 0.5117328 0.4994871
##
                 13383
                           13384
                                     13385
                                               13386
                                                         13387
                                                                    13388
                                                                              13389
## Cluster 1 0.7165332 0.7276446 0.7873077 0.7603289 0.8165915 0.7634973 0.6941645
## Cluster 2 0.7631202 0.7209941 0.6894604 0.7158856 0.8409589 0.8319413 0.7613519
## Cluster 3 0.6400567 0.6621461 0.6788340 0.7384411 0.8389348 0.8541206 0.7628213
## Cluster 4 0.5830830 0.5552671 0.6252960 0.5957545 0.6551336 0.6257040 0.5490181
## Cluster 5 0.4669267 0.5092155 0.5706810 0.6299612 0.6843017 0.7340517 0.7826164
                 13390
                           13391
                                     13392
                                               13393
                                                          13394
                                                                    13395
## Cluster 1 0.5648263 0.4382162 0.3480438 0.2639032 0.2147401 0.1911737 0.1733846
## Cluster 2 0.6991730 0.5614751 0.3943607 0.3069472 0.2290968 0.1902815 0.1574780
## Cluster 3 0.6908270 0.6113234 0.5382667 0.4500993 0.3524979 0.3041645 0.2442440
## Cluster 4 0.4690542 0.4395812 0.3850614 0.3044801 0.2665632 0.2501769 0.2496751
## Cluster 5 0.7744612 0.7609526 0.6869612 0.5960302 0.5179914 0.4093405 0.3376897
                 13397
                           13398
                                     13399
                                               13400
                                                         13401
                                                                    13402
                                                                              13403
## Cluster 1 0.1634761 0.1570438 0.1555172 0.1493170 0.1460796 0.1497241 0.1623382
## Cluster 2 0.1539267 0.1475718 0.1484956 0.1408065 0.1408416 0.1508387 0.1605367
## Cluster 3 0.2313121 0.2114582 0.2027064 0.1985504 0.1911135 0.1975234 0.2005248
## Cluster 4 0.2361986 0.2190181 0.2341408 0.2314440 0.2374079 0.2391047 0.2448556
## Cluster 5 0.3115388 0.2711595 0.2636293 0.2415560 0.2392241 0.2342845 0.2294655
                                     13406
                                               13407
                                                         13408
                 13404
                           13405
                                                                    13409
                                                                              13410
## Cluster 1 0.1678011 0.1830358 0.2426300 0.3681671 0.5265265 0.5183435 0.5139509
## Cluster 2 0.1862317 0.2476129 0.2798094 0.4183050 0.4291114 0.4462023 0.3521701
## Cluster 3 0.2093035 0.2365631 0.2937532 0.3223021 0.4127660 0.4445801 0.4367660
## Cluster 4 0.3112491 0.4443105 0.5671877 0.7480397 0.8006643 0.6994043 0.6308195
## Cluster 5 0.2212888 0.2181897 0.2540603 0.4152716 0.4308405 0.4333966 0.3880776
                 13411
                           13412
                                     13413
                                               13414
                                                         13415
                                                                    13416
                                                                              13417
## Cluster 1 0.4933435 0.4804310 0.4554708 0.4534191 0.4146910 0.3936220 0.4475782
## Cluster 2 0.2996393 0.2883842 0.2331994 0.2265132 0.2536129 0.2099003 0.2341408
## Cluster 3 0.4079035 0.4520709 0.4327149 0.4525121 0.4278894 0.4242426 0.4310057
## Cluster 4 0.4968773 0.4146282 0.3644657 0.3363538 0.3630397 0.3846426 0.3498087
## Cluster 5 0.3714828 0.3249397 0.3393060 0.3278448 0.3354741 0.3695345 0.3150216
                                                          13422
##
                 13418
                           13419
                                     13420
                                               13421
                                                                    13423
                                                                              13424
## Cluster 1 0.4472546 0.4792347 0.4449456 0.4160981 0.4356605 0.4521790 0.4927679
## Cluster 2 0.2699501 0.2722962 0.3009619 0.2843255 0.2660733 0.2626041 0.2622082
## Cluster 3 0.4636184 0.4915929 0.4675149 0.4465078 0.4758199 0.5241986 0.5829915
## Cluster 4 0.3701697 0.4190975 0.3963610 0.3876679 0.3702347 0.3971300 0.4521155
## Cluster 5 0.3813664 0.4141983 0.3711509 0.3259612 0.3090647 0.2996078 0.3250259
##
                 13425
                           13426
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                                                         13429
                                                                    13430
                                                                              13431
```

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## Cluster 1 0.5769907 0.7151605 0.8405703 0.9285186 0.8574907 0.7485942 0.8171844
## Cluster 2 0.2631173 0.3595279 0.4155718 0.5569208 0.7469296 0.7008211 0.7351056
## Cluster 3 0.6309986 0.6558851 0.6755489 0.7011589 0.6403745 0.6407745 0.6945319
## Cluster 4 0.5856751 0.6914477 0.8013430 0.7581047 0.6822491 0.6617184 0.5623430
## Cluster 5 0.3642716 0.3905776 0.4603664 0.4673750 0.4995474 0.5019138 0.5025948
                 13432
                           13433
                                               13435
                                                          13436
##
                                     13434
                                                                    13437
## Cluster 1 0.7666260 0.7336711 0.7467228 0.8667838 0.7956167 0.7330013 0.5808727
## Cluster 2 0.7654751 0.8334487 0.8534370 0.8985132 0.9297889 0.8138680 0.7194194
## Cluster 3 0.6758794 0.7039518 0.7252170 0.8458681 0.8708794 0.8237475 0.7516411
## Cluster 4 0.5440469 0.5166570 0.6234765 0.6545560 0.6424332 0.5440361 0.4999350
  Cluster 5 0.5545172 0.5508491 0.5740647 0.7618707 0.7881810 0.7519224 0.7409741
                 13439
                           13440
                                     13441
                                               13442
                                                          13443
                                                                    13444
                                                                              13445
## Cluster 1 0.5032334 0.3766897 0.2765345 0.2140690 0.1787122 0.1608103 0.1499456
## Cluster 2 0.5468886 0.4015777 0.2911056 0.2467683 0.1953050 0.1771144 0.1383548
## Cluster 3 0.6393816 0.5597092 0.4174525 0.3483674 0.2876496 0.2349872 0.2215518
## Cluster 4 0.4327798 0.3835560 0.3445596 0.2741191 0.2502599 0.2449819 0.2417617
## Cluster 5 0.7901078 0.6646509 0.5922716 0.4894526 0.4203707 0.3472457 0.3400603
##
                 13446
                           13447
                                     13448
                                               13449
                                                          13450
                                                                    13451
                                                                              13452
## Cluster 1 0.1470013 0.1457149 0.1434668 0.1432666 0.1454615 0.1520265 0.1598528
## Cluster 2 0.1449472 0.1461173 0.1383666 0.1384751 0.1364076 0.1510880 0.1915572
## Cluster 3 0.2078170 0.2033078 0.1909574 0.1891461 0.1993390 0.2048596 0.2142326
## Cluster 4 0.2316679 0.2349458 0.2470144 0.2564152 0.2520975 0.2658484 0.3284043
## Cluster 5 0.2995862 0.2489483 0.2302284 0.2290000 0.2221681 0.2438621 0.2487974
                 13453
                           13454
                                     13455
                                               13456
                                                          13457
                                                                    13458
## Cluster 1 0.1951671 0.2529257 0.4035836 0.5309469 0.5111313 0.5401366 0.5237069
## Cluster 2 0.2457683 0.2949179 0.4419619 0.4651554 0.4533226 0.3186862 0.2272815
## Cluster 3 0.2329277 0.2647092 0.3400837 0.4022539 0.4434156 0.4607433 0.4592227
## Cluster 4 0.4860830 0.6313177 0.8261083 0.8363755 0.6633863 0.5378014 0.3985560
## Cluster 5 0.2676121 0.2968362 0.3578233 0.3902371 0.3960819 0.3988836 0.3545259
##
                 13460
                           13461
                                     13462
                                               13463
                                                          13464
                                                                    13465
                                                                              13466
## Cluster 1 0.4767374 0.4602546 0.4348448 0.4274164 0.4151950 0.4092374 0.4276114
## Cluster 2 0.2252610 0.2010821 0.1845982 0.1966158 0.2289150 0.2188446 0.2468387
## Cluster 3 0.4597050 0.4382099 0.4540369 0.4189957 0.4201135 0.4450199 0.4693759
## Cluster 4 0.3599170 0.3486498 0.3472491 0.3441588 0.3593357 0.3652274 0.3678375
## Cluster 5 0.3412328 0.3181724 0.3155991 0.3700991 0.3325259 0.3593491 0.3342845
                                               13470
                 13467
                           13468
                                     13469
                                                          13471
                                                                    13472
                                                                              13473
## Cluster 1 0.4496936 0.3746379 0.3654523 0.4040889 0.4572082 0.4951737 0.5716088
## Cluster 2 0.2564545 0.2685836 0.2208827 0.2172111 0.2279238 0.2817185 0.3406158
## Cluster 3 0.4909333 0.4795404 0.4833560 0.4989092 0.5236553 0.5610071 0.6356837
## Cluster 4 0.4019639 0.3722455 0.3882852 0.3856895 0.3868917 0.4924838 0.5232022
## Cluster 5 0.3985560 0.3668491 0.3517457 0.3394224 0.3409483 0.3703362 0.3499483
                 13474
                           13475
                                     13476
                                               13477
                                                          13478
                                                                    13479
                                                                              13480
## Cluster 1 0.6931061 0.8830597 0.8976737 0.8435040 0.7869549 0.7967533 0.7313727
## Cluster 2 0.3378182 0.4282639 0.5528387 0.6091965 0.6779795 0.7558065 0.8196481
## Cluster 3 0.6848809 0.7037291 0.7326667 0.7143333 0.6510482 0.6756468 0.6919376
## Cluster 4 0.5629314 0.6915668 0.6792527 0.6208159 0.5759458 0.5553466 0.5345090
## Cluster 5 0.3239353 0.3677026 0.4501336 0.5847112 0.5154181 0.5087931 0.4933017
                                     13483
##
                 13481
                           13482
                                               13484
                                                          13485
                                                                    13486
                                                                              13487
## Cluster 1 0.7574881 0.8088050 0.8489602 0.8470915 0.7289403 0.6075928 0.4735862
## Cluster 2 0.8048504 0.8740059 0.9457683 0.9624164 0.8712346 0.7681437 0.5689267
## Cluster 3 0.7042326 0.7711631 0.8404071 0.8960865 0.8246241 0.7003376 0.6462000
## Cluster 4 0.5361552 0.6044079 0.7046931 0.6525523 0.5755090 0.4893213 0.4203755
## Cluster 5 0.5651853 0.6519310 0.7211509 0.7751767 0.8019698 0.7041681 0.7266379
##
                 13488
                           13489
                                     13490
                                               13491
                                                          13492
                                                                    13493
                                                                              13494
```

```
## Cluster 1 0.3592931 0.2888515 0.2288408 0.1873329 0.1672891 0.1612188 0.1509310
## Cluster 2 0.4278680 0.2907742 0.2492199 0.1883666 0.1657214 0.1538768 0.1487713
## Cluster 3 0.5469191 0.4431901 0.3492128 0.2699191 0.2423248 0.2165560 0.2067901
## Cluster 4 0.3385921 0.3237509 0.2895523 0.2560650 0.2507726 0.2518014 0.2574368
## Cluster 5 0.7239052 0.5940776 0.4930388 0.4366207 0.3560000 0.3331983 0.2838448
                 13495
                                               13498
                                                         13499
##
                           13496
                                     13497
                                                                    13500
## Cluster 1 0.1494005 0.1453833 0.1496154 0.1486592 0.1547971 0.1591618 0.1890902
## Cluster 2 0.1438739 0.1339912 0.1348680 0.1382141 0.1541173 0.1906510 0.2545455
## Cluster 3 0.1953404 0.1912369 0.1912043 0.1901206 0.1932695 0.2040369 0.2370284
## Cluster 4 0.2451083 0.2296065 0.2261336 0.2552130 0.2613141 0.3366643 0.4809495
  Cluster 5 0.2551250 0.2392241 0.2350431 0.2228060 0.2191509 0.2226379 0.2439397
                           13503
                                     13504
                 13502
                                               13505
                                                         13506
                                                                    13507
                                                                              13508
## Cluster 1 0.2620477 0.4070491 0.5602679 0.5523355 0.5195915 0.5263581 0.5169297
## Cluster 2 0.3210264 0.4384868 0.4400792 0.4260499 0.3325308 0.3190176 0.2917566
## Cluster 3 0.2896255 0.3370652 0.4044397 0.4640099 0.4206709 0.4250723 0.4210355
## Cluster 4 0.6510253 0.7864043 0.8150650 0.6913213 0.4730036 0.4389747 0.4261697
## Cluster 5 0.2389353 0.3237457 0.3781164 0.4052802 0.3846810 0.3714698 0.3228534
##
                 13509
                           13510
                                     13511
                                               13512
                                                         13513
                                                                    13514
                                                                              13515
## Cluster 1 0.4922599 0.4478236 0.4103210 0.4024178 0.4049244 0.4771340 0.4721631
## Cluster 2 0.2394106 0.2225748 0.2253812 0.2220176 0.2380117 0.2373578 0.2792023
## Cluster 3 0.4480780 0.4404482 0.4249915 0.4243220 0.4412610 0.4788766 0.5152071
## Cluster 4 0.4450758 0.3967581 0.3675740 0.3602166 0.3537184 0.3758592 0.3767292
## Cluster 5 0.3133879 0.3239095 0.3368190 0.3442284 0.3418319 0.3615216 0.3699957
                 13516
                           13517
                                     13518
                                               13519
                                                          13520
                                                                    13521
## Cluster 1 0.4213780 0.4121950 0.4050849 0.4448594 0.4602003 0.5278210 0.6554735
## Cluster 2 0.2611349 0.2704194 0.2306393 0.2414428 0.2780704 0.2894311 0.3598622
## Cluster 3 0.4861362 0.4607986 0.4531858 0.4713660 0.5748993 0.6780681 0.7167007
## Cluster 4 0.3626282 0.3358267 0.3469928 0.4008448 0.4478159 0.5357653 0.5854513
## Cluster 5 0.3285043 0.3118534 0.2934009 0.3701897 0.3252672 0.4065560 0.4239698
                 13523
                           13524
                                     13525
                                               13526
                                                         13527
                                                                    13528
                                                                              13529
## Cluster 1 0.7840796 0.8876857 0.8620345 0.7812599 0.7949430 0.7567865 0.7323740
## Cluster 2 0.4202287 0.5193988 0.5947361 0.6669443 0.7126862 0.7448123 0.7205220
## Cluster 3 0.6909716 0.6692113 0.7111348 0.6294340 0.6578965 0.6746809 0.6907986
## Cluster 4 0.6925632 0.7273502 0.6709892 0.6224368 0.5895343 0.5436823 0.6159711
## Cluster 5 0.3997629 0.4634741 0.4686250 0.5146767 0.5641034 0.5373405 0.5403793
                           13531
                                     13532
                                               13533
                                                         13534
                 13530
                                                                    13535
                                                                              13536
## Cluster 1 0.7689562 0.8659324 0.7901936 0.6993966 0.5717493 0.4933926 0.3730385
## Cluster 2 0.8442170 0.9638651 1.0556628 0.9223167 0.7661173 0.5790645 0.4368710
## Cluster 3 0.7566879 0.8568454 0.8804525 0.8240936 0.7343291 0.6711191 0.5414000
## Cluster 4 0.6344585 0.7060217 0.6869242 0.5603718 0.5108773 0.4207545 0.3310722
## Cluster 5 0.5782888 0.6768793 0.7055172 0.7433750 0.7282328 0.8037414 0.7671336
                 13537
                           13538
                                     13539
                                               13540
                                                         13541
                                                                    13542
                                                                              13543
## Cluster 1 0.2699058 0.2195199 0.1857454 0.1676844 0.1581034 0.1552878 0.1567135
## Cluster 2 0.3162933 0.2363578 0.2015103 0.1686012 0.1559971 0.1499355 0.1402111
## Cluster 3 0.4137404 0.3314326 0.2858596 0.2352894 0.2104894 0.2003546 0.1983305
## Cluster 4 0.2892527 0.2854007 0.2537906 0.2398195 0.2427798 0.2436101 0.2236570
## Cluster 5 0.6221897 0.4920388 0.4179397 0.3699828 0.3374871 0.2905129 0.2593707
                                                          13548
##
                 13544
                           13545
                                     13546
                                               13547
                                                                    13549
                                                                              13550
## Cluster 1 0.1505902 0.1523448 0.1558210 0.1528846 0.1609775 0.1845955 0.2520040
## Cluster 2 0.1342874 0.1447683 0.1503138 0.1560850 0.1972346 0.2264252 0.3142317
## Cluster 3 0.1904624 0.1896199 0.1863234 0.1897319 0.2100652 0.2380553 0.2783135
## Cluster 4 0.2247292 0.2305054 0.2501083 0.2721841 0.3064116 0.4525054 0.6517401
## Cluster 5 0.2377112 0.2440948 0.2212414 0.2341853 0.2599310 0.2485172 0.2667802
##
                 13551
                           13552
                                     13553
                                               13554
                                                         13555
                                                                    13556
                                                                              13557
```

```
## Cluster 1 0.3877905 0.5569615 0.5384682 0.5031021 0.5012215 0.5131233 0.5069549
## Cluster 2 0.4255073 0.5311701 0.4506070 0.3209941 0.2873636 0.2579091 0.2408065
## Cluster 3 0.3244525 0.3815277 0.4324723 0.4519759 0.4402340 0.4201574 0.4263986
## Cluster 4 0.8266968 0.8274188 0.7473177 0.5984621 0.5024549 0.3886859 0.3882166
## Cluster 5 0.3760991 0.3983621 0.4438448 0.3817672 0.3658750 0.3419741 0.3274741
                 13558
                           13559
                                     13560
                                                         13562
                                                                    13563
##
                                               13561
## Cluster 1 0.4621724 0.3792586 0.3982347 0.4164469 0.4316578 0.4518210 0.4132653
## Cluster 2 0.2147625 0.2284575 0.2225777 0.2434868 0.2424399 0.2422375 0.2602375
## Cluster 3 0.4266667 0.4437887 0.4577603 0.4414638 0.4661191 0.4907220 0.4284823
## Cluster 4 0.3604765 0.4184801 0.3984621 0.3718448 0.3742347 0.4316931 0.3651697
  Cluster 5 0.3132802 0.2966767 0.3218578 0.3002888 0.3264483 0.3714526 0.2772543
                           13566
                                     13567
                 13565
                                               13568
                                                         13569
                                                                    13570
                                                                              13571
## Cluster 1 0.4033647 0.3864337 0.3851459 0.4738740 0.5388249 0.6515252 0.7932878
## Cluster 2 0.2277009 0.2029677 0.2235044 0.2631848 0.2615425 0.2745777 0.3417361
## Cluster 3 0.4252298 0.4543447 0.4847106 0.5605064 0.6276965 0.6562326 0.6741773
## Cluster 4 0.3405235 0.3269747 0.3360686 0.4322094 0.4915812 0.5703574 0.6205848
## Cluster 5 0.2770259 0.2862586 0.3241164 0.3221983 0.2841379 0.3489095 0.3424784
##
                 13572
                           13573
                                     13574
                                               13575
                                                         13576
                                                                    13577
                                                                              13578
## Cluster 1 0.8368912 0.8127308 0.7351154 0.7183700 0.7234138 0.7119377 0.7159496
## Cluster 2 0.4275073 0.5343519 0.6501965 0.7537625 0.7703900 0.7690587 0.7829589
## Cluster 3 0.6945404 0.6517149 0.6275943 0.6417915 0.6272652 0.6522723 0.7427149
## Cluster 4 0.6258303 0.6562274 0.5990542 0.5400722 0.4456968 0.5393394 0.5742274
## Cluster 5 0.4554784 0.4644957 0.4747371 0.5546379 0.4988578 0.5043664 0.5778922
                 13579
                           13580
                                     13581
                                               13582
                                                         13583
                                                                    13584
## Cluster 1 0.8264058 0.8199430 0.7393515 0.6172905 0.4932639 0.3691976 0.2853727
## Cluster 2 0.9550557 0.9526129 0.8817038 0.7527478 0.5847918 0.4531496 0.2987302
## Cluster 3 0.8495957 0.8640638 0.8289560 0.7570383 0.6670950 0.5314355 0.4122553
## Cluster 4 0.6715307 0.6068123 0.5452816 0.5019964 0.4509422 0.4039783 0.3159892
## Cluster 5 0.6949741 0.7076164 0.7917629 0.6637586 0.7186207 0.6565862 0.6186207
                 13586
                           13587
                                     13588
                                               13589
                                                         13590
                                                                    13591
                                                                              13592
## Cluster 1 0.2191790 0.1877135 0.1677414 0.1546472 0.1505318 0.1452918 0.1482997
## Cluster 2 0.2310704 0.1866305 0.1694164 0.1592698 0.1484868 0.1487771 0.1418270
## Cluster 3 0.3356184 0.2995447 0.2489291 0.2194539 0.2095816 0.1916454 0.1914270
## Cluster 4 0.2823105 0.2719025 0.2430542 0.2363646 0.2230144 0.2149350 0.2184404
## Cluster 5 0.5141552 0.4106983 0.3908621 0.3177586 0.2929483 0.2501509 0.2460388
                           13594
                                     13595
                                               13596
                                                         13597
                 13593
                                                                    13598
                                                                              13599
## Cluster 1 0.1470398 0.1540159 0.1519337 0.1560902 0.1759125 0.2397865 0.3766936
## Cluster 2 0.1431496 0.1498886 0.1663079 0.1744223 0.2665513 0.3380205 0.4567185
## Cluster 3 0.1841149 0.1892227 0.1908085 0.2118482 0.2493319 0.2818624 0.3375035
## Cluster 4 0.2228845 0.2578628 0.2714657 0.3281119 0.4755704 0.5774368 0.7275271
## Cluster 5 0.2380862 0.2114655 0.2231034 0.2149353 0.2247112 0.2413190 0.3645733
                 13600
                           13601
                                     13602
                                               13603
                                                         13604
                                                                    13605
                                                                              13606
## Cluster 1 0.5407149 0.5245451 0.5122745 0.5247613 0.5304297 0.4579138 0.4386180
## Cluster 2 0.4547038 0.4261437 0.3272317 0.2923079 0.2928328 0.2391672 0.2189736
## Cluster 3 0.3606950 0.4162071 0.4215901 0.4637759 0.4922355 0.4786525 0.4413518
## Cluster 4 0.7683032 0.6656606 0.4804729 0.4607473 0.4368412 0.3597365 0.3466570
## Cluster 5 0.3893836 0.3712414 0.3711638 0.3463578 0.3633276 0.3217716 0.3767414
                           13608
                                     13609
##
                 13607
                                               13610
                                                          13611
                                                                    13612
                                                                              13613
## Cluster 1 0.4321910 0.4108634 0.3904655 0.4362082 0.4331963 0.3732599 0.3698753
## Cluster 2 0.2031906 0.2220264 0.2263167 0.2366158 0.2292727 0.2640117 0.2310088
## Cluster 3 0.4733319 0.4469915 0.4491830 0.4273702 0.4656624 0.4581915 0.4695135
## Cluster 4 0.3985776 0.4005162 0.3754765 0.3856029 0.3606679 0.3463285 0.3239350
## Cluster 5 0.3440517 0.3562457 0.3589741 0.3689698 0.3309052 0.3174655 0.3393190
##
                 13614
                           13615
                                     13616
                                               13617
                                                         13618
                                                                    13619
                                                                              13620
```

```
## Cluster 1 0.3923992 0.4206538 0.4710544 0.4951976 0.5700451 0.7191751 0.7964509
## Cluster 2 0.2427918 0.2458944 0.2600616 0.3063138 0.2851613 0.3390440 0.4077566
## Cluster 3 0.4484979 0.4872014 0.5805248 0.6039277 0.6765844 0.6519674 0.6569106
## Cluster 4 0.3229242 0.3470542 0.4496426 0.4814224 0.5522852 0.5870686 0.6592383
## Cluster 5 0.3091422 0.3261250 0.3017586 0.3612026 0.3728836 0.4080991 0.4679440
                 13621
                           13622
                                               13624
                                                         13625
                                                                    13626
##
                                     13623
## Cluster 1 0.7713064 0.7781777 0.7045119 0.6885915 0.7051737 0.7434682 0.8084841
## Cluster 2 0.4984575 0.6324164 0.7183988 0.7147683 0.7100499 0.7615396 0.8821818
## Cluster 3 0.6884298 0.6110752 0.6634128 0.6525277 0.6680596 0.7105220 0.8316340
## Cluster 4 0.6185054 0.5619567 0.5854116 0.5423394 0.5716426 0.5280578 0.6211949
  Cluster 5 0.4442069 0.4953707 0.4514914 0.4769224 0.4559138 0.5324784 0.7047845
                           13629
                 13628
                                     13630
                                               13631
                                                         13632
                                                                    13633
                                                                              13634
## Cluster 1 0.7991180 0.7235676 0.6423554 0.5794310 0.4728090 0.3396538 0.2589085
## Cluster 2 0.8302639 0.7846979 0.7532639 0.6110147 0.5216158 0.4035161 0.3119326
## Cluster 3 0.8263759 0.7813759 0.7547702 0.6840241 0.5967319 0.5190213 0.4230426
## Cluster 4 0.5986787 0.5359675 0.4788700 0.4506606 0.4092744 0.3694549 0.2962274
## Cluster 5 0.7128060 0.7360474 0.7579138 0.7547155 0.7181250 0.5929698 0.5577672
##
                 13635
                           13636
                                     13637
                                               13638
                                                          13639
                                                                    13640
                                                                              13641
## Cluster 1 0.2201008 0.1921777 0.1825597 0.1685451 0.1613316 0.1559907 0.1575093
## Cluster 2 0.2353988 0.1944223 0.1793490 0.1700616 0.1637419 0.1577361 0.1556305
## Cluster 3 0.3524241 0.3051773 0.2699475 0.2393674 0.2179660 0.2134979 0.1990340
## Cluster 4 0.2763466 0.2596245 0.2492419 0.2309458 0.2276282 0.2343213 0.2513718
## Cluster 5 0.4863103 0.4009914 0.3568836 0.2812284 0.2651983 0.2397759 0.2584526
                 13642
                           13643
                                     13644
                                               13645
                                                          13646
                                                                    13647
## Cluster 1 0.1594841 0.1577865 0.1576658 0.1688846 0.2096260 0.2591074 0.3002268
## Cluster 2 0.1655718 0.1666979 0.1616276 0.2066979 0.2386422 0.2499032 0.2849413
## Cluster 3 0.1992326 0.1972823 0.2013872 0.2275092 0.2326312 0.2664879 0.2770482
## Cluster 4 0.2502238 0.2500469 0.2681155 0.3386606 0.4186931 0.4736318 0.5783610
## Cluster 5 0.2204871 0.2184698 0.2224871 0.2271121 0.2446336 0.2983966 0.3095129
                 13649
                           13650
                                     13651
                                               13652
                                                         13653
                                                                    13654
                                                                              13655
## Cluster 1 0.4050650 0.5519443 0.5924695 0.6710862 0.7087838 0.6746432 0.6523448
## Cluster 2 0.3612463 0.4199296 0.4251525 0.5057478 0.5160792 0.5331613 0.4687273
## Cluster 3 0.3273305 0.3870695 0.5116440 0.5400468 0.5434922 0.5762227 0.5951262
## Cluster 4 0.5931552 0.6372491 0.6614296 0.6093249 0.5485776 0.5283574 0.5575235
## Cluster 5 0.3743707 0.4131207 0.3838966 0.3779612 0.4099526 0.4488664 0.4141853
                                     13658
                                                         13660
                 13656
                           13657
                                               13659
                                                                    13661
                                                                              13662
## Cluster 1 0.5849005 0.6211101 0.5986340 0.6349416 0.5745411 0.5857347 0.5507958
## Cluster 2 0.4369120 0.4684399 0.4682346 0.4637185 0.4207889 0.4052170 0.4030499
## Cluster 3 0.6457901 0.7007461 0.6683730 0.6895035 0.7012043 0.6587844 0.6035603
## Cluster 4 0.5730217 0.5220650 0.5472527 0.5531011 0.4818014 0.4336968 0.4576209
## Cluster 5 0.4734957 0.4568190 0.4704181 0.4637026 0.5079828 0.4858966 0.4909612
                 13663
                           13664
                                     13665
                                               13666
                                                         13667
                                                                    13668
                                                                              13669
## Cluster 1 0.5665265 0.5720133 0.6245438 0.6820902 0.7665836 0.9016127 0.9071300
## Cluster 2 0.4051056 0.4033842 0.4854340 0.5114106 0.5779765 0.6725425 0.7351584
## Cluster 3 0.6223404 0.6386411 0.6442993 0.7260482 0.7384355 0.7602525 0.7583489
## Cluster 4 0.5012202 0.4844404 0.5349747 0.6013249 0.7093357 0.6850072 0.6667762
## Cluster 5 0.4742198 0.4276638 0.4675948 0.4698448 0.4877371 0.5886121 0.5745517
                                                          13674
##
                 13670
                           13671
                                     13672
                                               13673
                                                                    13675
                                                                              13676
## Cluster 1 0.8710212 0.8313024 0.7471472 0.7806870 0.7407109 0.7376737 0.7176432
## Cluster 2 0.8411290 0.8351378 0.8053930 0.8679296 0.8147507 0.8796012 0.7962815
## Cluster 3 0.7814879 0.7845787 0.7341050 0.7547078 0.8269206 0.8750809 0.8105688
## Cluster 4 0.6132238 0.6251011 0.6041949 0.5637906 0.5789025 0.6139097 0.5605848
## Cluster 5 0.5953319 0.6101810 0.5597974 0.6011681 0.6442931 0.6678879 0.7004612
##
                 13677
                           13678
                                     13679
                                               13680
                                                         13681
                                                                    13682
                                                                              13683
```

```
## Cluster 1 0.6298939 0.5754032 0.5010955 0.4245676 0.3323727 0.2845756 0.2471472
## Cluster 2 0.7469824 0.6662727 0.5610616 0.4568065 0.3716510 0.2869208 0.2540352
## Cluster 3 0.7577872 0.7178582 0.6845475 0.5883404 0.4781418 0.4142809 0.3649915
## Cluster 4 0.4991805 0.4261300 0.4197329 0.3683069 0.3194657 0.3058412 0.2808700
## Cluster 5 0.6980862 0.7197716 0.7415819 0.6999224 0.5828836 0.5138233 0.4819655
                 13684
                           13685
                                     13686
                                                          13688
                                                                    13689
##
                                               13687
                                                                              13690
## Cluster 1 0.2077387 0.1770371 0.1735371 0.1703793 0.1621830 0.1594310 0.1606220
## Cluster 2 0.2356481 0.2090762 0.1870674 0.1783754 0.1744839 0.1611261 0.1592405
## Cluster 3 0.3137007 0.2814553 0.2482496 0.2304482 0.2152113 0.2115319 0.2098766
## Cluster 4 0.2541552 0.2560866 0.2458881 0.2447112 0.2251408 0.2312130 0.2608159
  Cluster 5 0.4161466 0.3770776 0.3231595 0.2872672 0.2647026 0.2588836 0.2409957
                                     13693
                 13691
                           13692
                                               13694
                                                          13695
                                                                    13696
                                                                              13697
## Cluster 1 0.1668316 0.1584536 0.1641658 0.1896618 0.2175875 0.2708554 0.3303581
## Cluster 2 0.1749765 0.1786979 0.1891818 0.2079091 0.2249326 0.2331378 0.2843871
## Cluster 3 0.1983872 0.2060865 0.2209404 0.2239631 0.2271078 0.2447035 0.2787404
## Cluster 4 0.2661155 0.2861661 0.3361625 0.3806498 0.4113285 0.4332780 0.4904043
## Cluster 5 0.2481853 0.2258750 0.2423448 0.2298405 0.2584397 0.3020086 0.3741853
##
                 13698
                           13699
                                     13700
                                               13701
                                                          13702
                                                                    13703
                                                                              13704
## Cluster 1 0.4388607 0.5159072 0.6042162 0.6565862 0.7247056 0.8044576 0.7511950
## Cluster 2 0.2947214 0.3807918 0.4513372 0.4443959 0.4894985 0.5763871 0.5416774
## Cluster 3 0.3481532 0.4379220 0.4985943 0.5855674 0.6501489 0.6803007 0.6898894
## Cluster 4 0.5441155 0.6029422 0.5848339 0.5683971 0.5525740 0.6066354 0.6467148
## Cluster 5 0.3374655 0.3917112 0.4365733 0.4667845 0.5082931 0.5433836 0.5243233
                 13705
                           13706
                                     13707
                                               13708
                                                          13709
                                                                    13710
## Cluster 1 0.7581525 0.8019907 0.7778210 0.7088223 0.6886432 0.6498475 0.6027759
## Cluster 2 0.5211349 0.5601877 0.5244018 0.4688915 0.4583871 0.4508094 0.4247537
## Cluster 3 0.7516142 0.8164355 0.8494014 0.8071986 0.7785078 0.6811390 0.6476241
## Cluster 4 0.6461083 0.5862708 0.5690686 0.5363357 0.5540542 0.4921697 0.5133935
## Cluster 5 0.4869871 0.5325259 0.5604009 0.5423578 0.4740216 0.5098405 0.4984009
##
                 13712
                           13713
                                     13714
                                               13715
                                                          13716
                                                                    13717
                                                                              13718
## Cluster 1 0.6288634 0.6246751 0.6350544 0.6931101 0.7761353 0.8037095 0.7720517
## Cluster 2 0.4086422 0.4501935 0.4388211 0.5130792 0.5236276 0.6335660 0.6916422
## Cluster 3 0.6317816 0.6832936 0.7096681 0.6718326 0.6573305 0.6708142 0.6892823
## Cluster 4 0.5822166 0.6342455 0.5630758 0.6060866 0.5840542 0.6091516 0.6024332
  Cluster 5 0.5093103 0.5160819 0.4844957 0.5717457 0.6019310 0.5578664 0.5879224
                           13720
                                     13721
                                                          13723
                 13719
                                               13722
                                                                    13724
                                                                              13725
## Cluster 1 0.8077533 0.7668276 0.7518515 0.7557401 0.8022162 0.7476512 0.6676857
## Cluster 2 0.6885132 0.7178006 0.7234575 0.7217595 0.8314340 0.8553930 0.7943460
## Cluster 3 0.6740369 0.6909050 0.7241645 0.7115716 0.7795191 0.7792752 0.7680950
## Cluster 4 0.5537076 0.5504404 0.5775018 0.5433791 0.6504513 0.5912852 0.5216065
## Cluster 5 0.5990905 0.5906897 0.6296552 0.6516897 0.7575388 0.7382802 0.8096810
                 13726
                           13727
                                     13728
                                               13729
                                                          13730
                                                                    13731
                                                                              13732
## Cluster 1 0.5675146 0.4640955 0.3583660 0.2677454 0.2283687 0.1890013 0.1741061
## Cluster 2 0.7279883 0.5513021 0.4025044 0.3108270 0.2537947 0.1992669 0.1675718
## Cluster 3 0.6579305 0.6134057 0.5216496 0.4175121 0.3484752 0.3000085 0.2489390
## Cluster 4 0.5085812 0.4221047 0.3491769 0.3044982 0.2738917 0.2356606 0.2278953
## Cluster 5 0.7759698 0.9142112 0.7487543 0.6352500 0.5247759 0.4149397 0.3884353
                                     13735
##
                 13733
                           13734
                                               13736
                                                          13737
                                                                    13738
                                                                              13739
## Cluster 1 0.1670769 0.1608050 0.1550663 0.1521088 0.1512520 0.1662082 0.1628103
## Cluster 2 0.1528768 0.1487537 0.1470381 0.1420117 0.1419120 0.1454809 0.1667273
## Cluster 3 0.2211390 0.2141291 0.2080610 0.1993915 0.1931163 0.1965262 0.2018525
## Cluster 4 0.2117076 0.2284693 0.2335162 0.2346859 0.2313538 0.2486823 0.2656859
## Cluster 5 0.3443966 0.2852716 0.2592457 0.2517759 0.2329267 0.2413103 0.2528836
##
                 13740
                           13741
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                                               13743
                                                          13744
                                                                    13745
                                                                              13746
```

```
## Cluster 1 0.1686167 0.1894735 0.2349629 0.3780809 0.5170584 0.5573992 0.5050650
## Cluster 2 0.1687009 0.2210733 0.3059736 0.4275718 0.4515836 0.4151642 0.3178475
## Cluster 3 0.2015631 0.2342241 0.2727333 0.3173021 0.3786085 0.4054979 0.4089674
## Cluster 4 0.3069278 0.3963321 0.6063538 0.8045740 0.7423538 0.6250578 0.5360433
## Cluster 5 0.2320819 0.2288103 0.2426034 0.3418664 0.3756638 0.4336724 0.3927845
                           13748
##
                 13747
                                     13749
                                               13750
                                                          13751
                                                                    13752
                                                                              13753
## Cluster 1 0.4966751 0.4979523 0.4768873 0.4881393 0.4593475 0.4442334 0.4496552
## Cluster 2 0.2893255 0.2749150 0.2660557 0.2502053 0.2282434 0.2107625 0.2062434
## Cluster 3 0.4100809 0.4264355 0.4576553 0.4621121 0.4937745 0.4731645 0.4799376
## Cluster 4 0.4824224 0.4349892 0.4271444 0.4265596 0.3916282 0.4122924 0.3817040
  Cluster 5 0.3893276 0.3360474 0.3253276 0.3484483 0.3412974 0.3481078 0.3482802
                 13754
                           13755
                                     13756
                                                          13758
                                               13757
                                                                    13759
                                                                              13760
## Cluster 1 0.4519655 0.4697586 0.4268793 0.4292984 0.4353846 0.4682467 0.5108939
## Cluster 2 0.2559267 0.2858768 0.2587771 0.2431906 0.2459941 0.2717361 0.2809238
## Cluster 3 0.5100255 0.5377021 0.4956879 0.4775816 0.4884638 0.5755702 0.6143078
## Cluster 4 0.3872599 0.3895415 0.3983791 0.4057292 0.3907329 0.3797365 0.4580939
## Cluster 5 0.3710517 0.3949224 0.3830431 0.3247198 0.3253319 0.3565474 0.3901293
##
                 13761
                           13762
                                     13763
                                               13764
                                                          13765
                                                                    13766
                                                                              13767
## Cluster 1 0.5690663 0.6813355 0.7867613 0.8629801 0.8619682 0.7843382 0.7369828
## Cluster 2 0.2970117 0.3450792 0.3952962 0.5688915 0.6377801 0.7241496 0.7242053
## Cluster 3 0.6620823 0.6868355 0.6859305 0.6969433 0.6526411 0.6408397 0.6602156
## Cluster 4 0.5491733 0.5966318 0.6941083 0.7420830 0.6703069 0.6515957 0.5500830
## Cluster 5 0.3851466 0.3983922 0.4368190 0.4796810 0.5058190 0.5596638 0.5215172
                 13768
                           13769
                                     13770
                                               13771
                                                          13772
                                                                    13773
## Cluster 1 0.6838939 0.6856008 0.7386737 0.8743236 0.8332334 0.7147732 0.5694973
## Cluster 2 0.7107625 0.6461232 0.8067126 0.9197595 0.9165718 0.8389560 0.7197859
## Cluster 3 0.6686652 0.6522610 0.7002752 0.8050085 0.8297745 0.7984440 0.7455844
## Cluster 4 0.5312563 0.5543069 0.5766390 0.6484043 0.6628628 0.5631408 0.5127545
## Cluster 5 0.5213147 0.5124138 0.6253534 0.6698448 0.7257026 0.7447371 0.7250259
##
                 13775
                           13776
                                     13777
                                               13778
                                                          13779
                                                                    13780
                                                                              13781
## Cluster 1 0.4687056 0.3591804 0.2786074 0.2340438 0.1855942 0.1734045 0.1584244
## Cluster 2 0.5473284 0.4193109 0.2888123 0.2224516 0.1903959 0.1572727 0.1510821
## Cluster 3 0.6940738 0.5694128 0.4462539 0.3533986 0.3037816 0.2547844 0.2227447
## Cluster 4 0.4444874 0.3762166 0.3330289 0.2670361 0.2472455 0.2358700 0.2177329
## Cluster 5 0.6856983 0.6405216 0.5832069 0.4849655 0.4288448 0.3694698 0.3100560
                 13782
                           13783
                                     13784
                                               13785
                                                          13786
                                                                    13787
                                                                              13788
## Cluster 1 0.1587361 0.1498103 0.1496286 0.1564748 0.1590027 0.1651618 0.1747944
## Cluster 2 0.1516774 0.1499208 0.1382991 0.1450205 0.1491818 0.1596217 0.1784604
## Cluster 3 0.2123915 0.2126340 0.1986809 0.1946950 0.1955092 0.1934170 0.2133901
## Cluster 4 0.2092238 0.2236895 0.2265054 0.2343610 0.2489314 0.2694513 0.3559603
## Cluster 5 0.2625647 0.2492371 0.2199009 0.2416724 0.2217845 0.2209095 0.2177284
                 13789
                           13790
                                     13791
                                               13792
                                                          13793
                                                                    13794
                                                                              13795
## Cluster 1 0.1977520 0.2569642 0.3995133 0.5224509 0.5438090 0.5278090 0.5295968
## Cluster 2 0.2727067 0.3290792 0.4292375 0.4319091 0.4223900 0.3043695 0.2781642
## Cluster 3 0.2454851 0.2959390 0.3353106 0.3929504 0.4409645 0.4269816 0.4092284
## Cluster 4 0.4614296 0.6112094 0.7992924 0.6815957 0.6431155 0.5611191 0.4428448
## Cluster 5 0.2257931 0.2630905 0.4030259 0.3951595 0.4674267 0.3378103 0.4036034
                 13796
                                                          13800
##
                           13797
                                     13798
                                               13799
                                                                    13801
                                                                              13802
## Cluster 1 0.5121340 0.4621870 0.4432692 0.4205822 0.4332918 0.4565769 0.4723979
## Cluster 2 0.2466217 0.2415806 0.2339032 0.2294868 0.2224868 0.2352111 0.2559032
## Cluster 3 0.4166922 0.4523319 0.4755404 0.4458156 0.4692837 0.4889929 0.5060355
## Cluster 4 0.4090939 0.4031516 0.3731191 0.3289386 0.3632022 0.3483682 0.3706895
## Cluster 5 0.3207888 0.2933190 0.3505388 0.3613836 0.3334569 0.3045905 0.3748103
##
                 13803
                           13804
                                     13805
                                               13806
                                                          13807
                                                                    13808
                                                                              13809
```

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## Cluster 1 0.4753753 0.4297467 0.4358395 0.4432984 0.4840968 0.5295544 0.5651326
## Cluster 2 0.2644047 0.2467918 0.2553021 0.2402170 0.2389179 0.2989150 0.3076833
## Cluster 3 0.5700142 0.5149319 0.5088142 0.5043035 0.5553348 0.5732865 0.6449518
## Cluster 4 0.3814838 0.3683177 0.3704188 0.3853755 0.4057690 0.4936029 0.5695307
## Cluster 5 0.4050000 0.3755388 0.3546897 0.3326078 0.3364138 0.3600560 0.4035129
                 13810
                           13811
                                     13812
                                               13813
                                                         13814
                                                                    13815
## Cluster 1 0.6990424 0.9114297 0.9831472 0.9011180 0.8362798 0.8360769 0.7961989
## Cluster 2 0.3093079 0.4092874 0.5198358 0.6164399 0.6984282 0.8255015 0.8275865
## Cluster 3 0.7209830 0.7843532 0.7929447 0.7539603 0.7275348 0.7447064 0.7264227
## Cluster 4 0.6100036 0.7894982 0.7833213 0.7423249 0.6547509 0.6119783 0.5551227
  Cluster 5 0.4381379 0.4647284 0.5081121 0.5383405 0.5555302 0.5611078 0.6162414
                           13818
                                     13819
                 13817
                                               13820
                                                         13821
                                                                    13822
                                                                              13823
## Cluster 1 0.7818952 0.8580531 0.8431976 0.7456631 0.6811154 0.5720279 0.4848979
## Cluster 2 0.8078886 0.8577625 0.9426510 0.9319355 0.8568856 0.7096012 0.5687390
## Cluster 3 0.7575745 0.7950993 0.8599674 0.8330979 0.7899475 0.7077702 0.6328397
## Cluster 4 0.6665812 0.6641227 0.6514801 0.5742635 0.5598881 0.4779097 0.4391697
## Cluster 5 0.6427974 0.6465905 0.6649181 0.7246595 0.7164526 0.7269655 0.7576078
##
                 13824
                           13825
                                     13826
                                               13827
                                                         13828
                                                                    13829
                                                                              13830
## Cluster 1 0.3787016 0.2693143 0.2280239 0.1891340 0.1679178 0.1592825 0.1534748
## Cluster 2 0.4090909 0.3088065 0.2211760 0.1940704 0.1879619 0.1490762 0.1475396
## Cluster 3 0.5382383 0.4505603 0.3468652 0.2848823 0.2554894 0.2282071 0.2093220
## Cluster 4 0.3675921 0.3134477 0.2589531 0.2354982 0.2317726 0.2228195 0.2093177
## Cluster 5 0.6939828 0.6209828 0.4614224 0.4082888 0.3464741 0.3252629 0.2743879
                 13831
                           13832
                                     13833
                                               13834
                                                          13835
                                                                    13836
## Cluster 1 0.1472653 0.1493024 0.1441751 0.1555902 0.1634536 0.1790928 0.2070279
## Cluster 2 0.1428974 0.1438622 0.1395777 0.1444194 0.1557331 0.1860616 0.2630264
## Cluster 3 0.2047801 0.2005504 0.1966511 0.1934255 0.1914454 0.2002794 0.2544539
## Cluster 4 0.2317329 0.2272527 0.2429422 0.2460036 0.2528051 0.3403502 0.4499639
## Cluster 5 0.2402672 0.2293448 0.2191034 0.2106940 0.2286853 0.2346164 0.2298190
                 13838
                           13839
                                     13840
                                               13841
                                                         13842
                                                                    13843
                                                                              13844
## Cluster 1 0.2581989 0.3816061 0.5323329 0.5481393 0.5231432 0.5032812 0.5071857
## Cluster 2 0.3527947 0.4238710 0.4603842 0.4671056 0.3536393 0.2768622 0.2661056
## Cluster 3 0.2974128 0.3369206 0.3489560 0.4135986 0.4403660 0.3993348 0.4197560
## Cluster 4 0.6702094 0.7831300 0.7972238 0.6782274 0.5095632 0.4372455 0.3988628
## Cluster 5 0.2694181 0.3226724 0.4116897 0.4199483 0.3941466 0.3769483 0.4084440
                           13846
                                     13847
                                               13848
                                                         13849
                 13845
                                                                    13850
                                                                              13851
## Cluster 1 0.4571737 0.4442109 0.4081724 0.3979496 0.4253236 0.4522984 0.4559098
## Cluster 2 0.2450059 0.2570469 0.2217302 0.2175073 0.2242229 0.2305572 0.2756891
## Cluster 3 0.4674950 0.4634553 0.4538369 0.4492184 0.4772411 0.4757149 0.5379915
## Cluster 4 0.3671227 0.3553899 0.3408123 0.3672202 0.3955379 0.3800866 0.3569458
## Cluster 5 0.3178405 0.3210431 0.3390991 0.3520172 0.3438534 0.3695388 0.3540086
                 13852
                           13853
                                     13854
                                               13855
                                                         13856
                                                                    13857
                                                                              13858
## Cluster 1 0.4260252 0.4298369 0.4455040 0.4237135 0.4698528 0.5594324 0.6440584
## Cluster 2 0.2343988 0.2418856 0.2135865 0.2367273 0.2523138 0.2756950 0.3104868
## Cluster 3 0.4713787 0.5066028 0.5106199 0.5397844 0.5890184 0.6456624 0.7016851
## Cluster 4 0.3414910 0.3483538 0.4117437 0.4192130 0.5265523 0.5860830 0.6442383
## Cluster 5 0.3505259 0.3594353 0.3728190 0.3273103 0.3585776 0.3217888 0.3492241
                           13860
                                     13861
                                                          13863
##
                 13859
                                               13862
                                                                    13864
                                                                              13865
## Cluster 1 0.7760743 0.9138793 0.9067984 0.7851525 0.7770597 0.7360027 0.7162029
## Cluster 2 0.3729883 0.4309267 0.5151877 0.6564135 0.7008446 0.7449208 0.7453695
## Cluster 3 0.6993702 0.7237674 0.7147957 0.6729191 0.7348993 0.6937645 0.7001816
## Cluster 4 0.6917437 0.6752563 0.6133394 0.6153105 0.5868989 0.6358339 0.6490181
## Cluster 5 0.4319483 0.4972629 0.4903491 0.5124095 0.5246466 0.5495259 0.5605862
##
                 13866
                           13867
                                     13868
                                               13869
                                                         13870
                                                                    13871
                                                                              13872
```

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## Cluster 1 0.7719841 0.8100053 0.7553886 0.7089682 0.6065106 0.5010491 0.3875000
## Cluster 2 0.7721994 0.8601818 0.8811202 0.8188710 0.7101290 0.5901349 0.4749326
## Cluster 3 0.7583560 0.8196468 0.8003603 0.8161220 0.7403390 0.6842057 0.5613475
## Cluster 4 0.5747473 0.6407726 0.6572419 0.5994152 0.5344693 0.4620361 0.3987870
## Cluster 5 0.5661810 0.6730991 0.6838017 0.6925560 0.6955302 0.7222155 0.6429526
##
                 13873
                           13874
                                     13875
                                               13876
                                                          13877
                                                                    13878
                                                                              13879
## Cluster 1 0.2770756 0.2310796 0.1925438 0.1795053 0.1641777 0.1568077 0.1534125
## Cluster 2 0.3346921 0.2568094 0.1958534 0.1656540 0.1456393 0.1458358 0.1458416
## Cluster 3 0.4348936 0.3552184 0.2867688 0.2483773 0.2285418 0.2070723 0.2016638
## Cluster 4 0.3361264 0.2923032 0.2757004 0.2382744 0.2266173 0.2265018 0.2305379
  Cluster 5 0.5666207 0.4415086 0.4284353 0.3536422 0.2966552 0.2523233 0.2380302
                                     13882
                 13880
                           13881
                                               13883
                                                          13884
                                                                    13885
                                                                              13886
## Cluster 1 0.1498966 0.1531499 0.1509204 0.1628143 0.1736936 0.1974549 0.2719297
## Cluster 2 0.1414076 0.1379853 0.1459091 0.1597273 0.1937801 0.2693343 0.3304428
## Cluster 3 0.1945035 0.1934170 0.2034865 0.1929617 0.2174326 0.2413035 0.2826950
## Cluster 4 0.2248448 0.2480758 0.2456354 0.2630975 0.3581264 0.4804838 0.6512058
## Cluster 5 0.2367457 0.2442845 0.2138966 0.2300991 0.2298103 0.2230603 0.2814009
##
                 13887
                           13888
                                     13889
                                               13890
                                                          13891
                                                                    13892
                                                                              13893
## Cluster 1 0.4166804 0.5879178 0.5536645 0.5233448 0.5125080 0.5365769 0.4817865
## Cluster 2 0.4068358 0.4368915 0.4906569 0.3858651 0.2945689 0.2866657 0.2599179
## Cluster 3 0.3321504 0.4154156 0.4397447 0.4417418 0.4534454 0.4444567 0.4479433
## Cluster 4 0.8155162 0.7777148 0.6792563 0.5597004 0.4636318 0.3977617 0.4130650
## Cluster 5 0.3681466 0.3699009 0.3846509 0.3542716 0.3314224 0.3240086 0.3277845
                 13894
                           13895
                                     13896
                                               13897
                                                          13898
                                                                    13899
## Cluster 1 0.4108820 0.3896101 0.3919204 0.3846910 0.4264244 0.4370093 0.4176300
## Cluster 2 0.2491349 0.2338240 0.2176862 0.2179296 0.2327537 0.2757683 0.2316716
## Cluster 3 0.4508454 0.4470454 0.4562837 0.4780383 0.4781674 0.4807319 0.4691730
## Cluster 4 0.4182888 0.3534874 0.3995776 0.3808051 0.3744440 0.3875451 0.4046751
## Cluster 5 0.3507974 0.2802198 0.3157931 0.3209052 0.3718793 0.3630086 0.3209483
##
                 13901
                           13902
                                     13903
                                               13904
                                                          13905
                                                                    13906
                                                                              13907
## Cluster 1 0.3960942 0.3935066 0.4059244 0.4583130 0.5498607 0.6297719 0.7182573
## Cluster 2 0.2446334 0.2070909 0.2592023 0.2314545 0.3006891 0.3503724 0.3745191
## Cluster 3 0.4528071 0.4729816 0.5152156 0.5830936 0.6308738 0.6765106 0.6800823
## Cluster 4 0.3901011 0.3724729 0.4259531 0.5189242 0.5653430 0.6639314 0.6659783
  Cluster 5 0.3003362 0.3103017 0.3405043 0.3381293 0.3693793 0.3747155 0.3898405
                                     13910
                                                          13912
                 13908
                           13909
                                               13911
                                                                    13913
                                                                              13914
## Cluster 1 0.8429523 0.8474894 0.7035504 0.7121976 0.6881021 0.7081220 0.7494576
## Cluster 2 0.4709003 0.5820235 0.6560264 0.7071056 0.7263226 0.7170938 0.7545982
## Cluster 3 0.6916709 0.6940142 0.6565858 0.6603546 0.6791574 0.6622667 0.7233830
## Cluster 4 0.6980686 0.5989711 0.5719025 0.5624910 0.5450397 0.5499350 0.6173069
## Cluster 5 0.4618405 0.5295776 0.5113707 0.5368922 0.5090776 0.4892672 0.5439440
                 13915
                           13916
                                     13917
                                               13918
                                                          13919
                                                                    14064
                                                                              14065
## Cluster 1 0.7862865 0.7788966 0.7146008 0.6133395 0.5238395 0.3929496 0.3279297
## Cluster 2 0.8486745 0.8801789 0.7981848 0.7317331 0.5914370 0.4499208 0.3461935
## Cluster 3 0.7995645 0.8052709 0.7933986 0.7319489 0.6724922 0.5762610 0.4914440
## Cluster 4 0.6391444 0.6186498 0.5638448 0.5356859 0.4980325 0.3861336 0.3285884
## Cluster 5 0.6392371 0.6610948 0.7218060 0.7655259 0.7589698 0.6407759 0.6262069
                                     14068
                                                          14070
##
                 14066
                           14067
                                               14069
                                                                    14071
                                                                              14072
## Cluster 1 0.2752613 0.2384072 0.2101233 0.1946870 0.1871804 0.1734814 0.1684748
## Cluster 2 0.2922405 0.2298710 0.2148915 0.2001701 0.1819208 0.1683519 0.1641173
## Cluster 3 0.4146071 0.3417404 0.3001475 0.2675801 0.2345858 0.2254638 0.2182681
## Cluster 4 0.2923213 0.2874477 0.2629170 0.2423032 0.2518195 0.2353791 0.2362852
## Cluster 5 0.5457759 0.5208836 0.4299957 0.3701293 0.3276121 0.3173836 0.2996078
##
                 14073
                           14074
                                     14075
                                               14076
                                                          14077
                                                                    14078
                                                                              14079
```

```
## Cluster 1 0.1695000 0.1584058 0.1646485 0.1664602 0.1673647 0.1891446 0.2170371
## Cluster 2 0.1616364 0.1464106 0.1600997 0.1663255 0.1843548 0.2110997 0.2108035
## Cluster 3 0.2045674 0.1960596 0.1936043 0.1938752 0.2121504 0.2154113 0.2157504
## Cluster 4 0.2493827 0.2465235 0.2353502 0.2591372 0.3300253 0.3506029 0.3918953
## Cluster 5 0.2779828 0.2436897 0.2594741 0.2232241 0.2301250 0.2332759 0.2386724
                 14080
                           14081
                                     14082
                                               14083
                                                         14084
##
                                                                    14085
## Cluster 1 0.2344708 0.2809775 0.3763223 0.4946751 0.5669668 0.6444178 0.7169138
## Cluster 2 0.2224721 0.2377801 0.2932757 0.3502258 0.3988358 0.4623636 0.5178915
## Cluster 3 0.2332241 0.2527078 0.2990142 0.3427319 0.4659858 0.5256355 0.5710184
## Cluster 4 0.4769603 0.5575235 0.6047653 0.5948412 0.6374079 0.5993899 0.6435487
  Cluster 5 0.2422802 0.2950603 0.3218276 0.3739569 0.4170819 0.4205129 0.4691379
                 14087
                           14088
                                     14089
                                               14090
                                                         14091
                                                                    14092
                                                                              14093
## Cluster 1 0.6959456 0.6506989 0.6795676 0.6884231 0.7131897 0.6405743 0.6302069
## Cluster 2 0.5020147 0.5252463 0.4849003 0.4659765 0.4891877 0.5030997 0.4599853
## Cluster 3 0.6578851 0.6729631 0.7570667 0.7928085 0.7850709 0.6911390 0.6661603
## Cluster 4 0.5537076 0.6215343 0.6204043 0.5678303 0.5696029 0.5669856 0.4950036
## Cluster 5 0.4942629 0.5010776 0.4296293 0.4806595 0.4935129 0.4371853 0.3901940
##
                 14094
                           14095
                                     14096
                                               14097
                                                         14098
                                                                    14099
                                                                              14100
## Cluster 1 0.5847122 0.5641618 0.5993979 0.5989483 0.6708037 0.7336592 0.8074867
## Cluster 2 0.4569443 0.4373754 0.4179912 0.4142493 0.4463050 0.4960587 0.5555396
## Cluster 3 0.6347887 0.6270440 0.6460865 0.6342723 0.6653376 0.6696255 0.6661333
## Cluster 4 0.4392238 0.5074404 0.5369856 0.5247581 0.6211011 0.7226426 0.6529134
## Cluster 5 0.4442069 0.4442414 0.4781379 0.5027328 0.4727543 0.4904138 0.5173319
                 14101
                           14102
                                     14103
                                               14104
                                                          14105
                                                                    14106
## Cluster 1 0.8176154 0.7658395 0.7567971 0.7871857 0.7605358 0.7451167 0.7653037
## Cluster 2 0.5782287 0.6998915 0.6718211 0.7342082 0.7160029 0.7310997 0.8000938
## Cluster 3 0.6825191 0.6626794 0.6745106 0.6771291 0.6617248 0.6986383 0.7765518
## Cluster 4 0.6578592 0.6291949 0.5540397 0.5315596 0.5143032 0.5305704 0.5841805
## Cluster 5 0.5397371 0.5094310 0.5141034 0.5096940 0.5794526 0.6499397 0.6942241
                 14108
                           14109
                                     14110
                                               14111
                                                         14112
                                                                    14113
                                                                              14114
## Cluster 1 0.8025915 0.7255995 0.6431233 0.4997255 0.4053820 0.3043263 0.2352202
## Cluster 2 0.8666041 0.8004194 0.7153431 0.5901261 0.4659707 0.3369765 0.2680645
## Cluster 3 0.8472085 0.8396298 0.7641844 0.6974099 0.5750511 0.4735390 0.3761560
## Cluster 4 0.5975776 0.5657040 0.5023321 0.4160253 0.3693899 0.3237220 0.2659061
## Cluster 5 0.7982629 0.8276207 0.7672802 0.7960474 0.7245991 0.6768276 0.5480862
                                     14117
                                                         14119
                 14115
                           14116
                                               14118
                                                                    14120
## Cluster 1 0.2034125 0.1740345 0.1645650 0.1600544 0.1446088 0.1462984 0.1464907
## Cluster 2 0.2159501 0.1710528 0.1619150 0.1540352 0.1451525 0.1404223 0.1375894
## Cluster 3 0.3070369 0.2529801 0.2379277 0.2174340 0.2062128 0.1988170 0.1918723
## Cluster 4 0.2506570 0.2457437 0.2313502 0.2137329 0.2225379 0.2152527 0.2238592
## Cluster 5 0.4888190 0.3988276 0.3448060 0.3067198 0.2602284 0.2412328 0.2466121
                 14122
                           14123
                                     14124
                                               14125
                                                         14126
                                                                    14127
                                                                              14128
## Cluster 1 0.1465053 0.1535836 0.1719350 0.1881711 0.2439562 0.3443462 0.5149244
## Cluster 2 0.1364633 0.1712639 0.2025220 0.2537302 0.3134018 0.4133255 0.4372023
## Cluster 3 0.1946184 0.1926284 0.2145844 0.2496667 0.2692128 0.3047177 0.4045816
## Cluster 4 0.2299061 0.2442347 0.2790217 0.3806751 0.5383249 0.6679675 0.8153682
## Cluster 5 0.2111681 0.2327672 0.2430216 0.2505431 0.2682328 0.3776681 0.3490862
##
                 14129
                           14130
                                     14131
                                               14132
                                                          14133
                                                                    14134
                                                                              14135
## Cluster 1 0.5276313 0.5326698 0.5168859 0.5160517 0.4941379 0.4701008 0.4548820
## Cluster 2 0.4289472 0.3278270 0.3084897 0.2737273 0.2820147 0.2326774 0.2319736
## Cluster 3 0.4002837 0.4378993 0.4241092 0.4186610 0.4115262 0.4513943 0.4413887
## Cluster 4 0.7068556 0.5820686 0.5219819 0.4338123 0.4357437 0.4040866 0.4003466
## Cluster 5 0.4329741 0.3808448 0.3367543 0.3212155 0.3173448 0.3776509 0.3429612
##
                 14136
                           14137
                                     14138
                                               14139
                                                         14140
                                                                    14141
                                                                              14142
```

```
## Cluster 1 0.4293820 0.4328753 0.4481419 0.4554443 0.4209111 0.4074005 0.4067135
## Cluster 2 0.2104428 0.2440411 0.2535161 0.3180264 0.2813842 0.2620557 0.2942141
## Cluster 3 0.4246099 0.4904355 0.5225291 0.5115887 0.5422539 0.5202525 0.5177631
## Cluster 4 0.4075343 0.4277437 0.4375704 0.4288375 0.4317112 0.4442347 0.4010939
## Cluster 5 0.3343491 0.3162759 0.3468491 0.3799569 0.3489655 0.3852155 0.3347069
                 14143
                                     14145
                                               14146
                                                         14147
                           14144
                                                                    14148
## Cluster 1 0.4590623 0.4844682 0.5700239 0.6698767 0.8614761 1.0023687 0.9284615
## Cluster 2 0.2956070 0.2831613 0.3026598 0.3776041 0.4436804 0.5554604 0.6653372
## Cluster 3 0.5579957 0.6087248 0.6530553 0.7324525 0.7332525 0.7504837 0.6959504
## Cluster 4 0.4626643 0.5044440 0.5667040 0.6751697 0.7689711 0.7789783 0.7699495
  Cluster 5 0.3011250 0.3239698 0.3597241 0.4083362 0.4554483 0.5182888 0.4931293
                                     14152
                 14150
                           14151
                                               14153
                                                         14154
                                                                    14155
                                                                              14156
## Cluster 1 0.8076910 0.7879151 0.7444098 0.7539708 0.7553886 0.7862122 0.7870146
## Cluster 2 0.7237947 0.7636510 0.7372493 0.7529443 0.7941994 0.8236452 0.8446716
## Cluster 3 0.7154837 0.6907220 0.6822241 0.6930411 0.7090780 0.7789660 0.7987121
## Cluster 4 0.6793466 0.6134729 0.5551155 0.5800217 0.6219747 0.6257112 0.6166245
## Cluster 5 0.5312759 0.5266767 0.5287112 0.5672414 0.5813060 0.7199914 0.7379009
##
                 14157
                           14158
                                     14159
                                               14160
                                                         14161
                                                                    14162
## Cluster 1 0.7317732 0.6062401 0.5128966 0.3872281 0.2917056 0.2310477 0.1874045
## Cluster 2 0.8493812 0.7603167 0.5990147 0.4546246 0.3357654 0.2613109 0.1961906
## Cluster 3 0.7995064 0.7353518 0.6631220 0.5399816 0.4769546 0.3577220 0.2988355
## Cluster 4 0.5330253 0.4811011 0.4424874 0.3569458 0.3326931 0.2691986 0.2416859
## Cluster 5 0.7992457 0.7213491 0.7842845 0.6894440 0.6253491 0.4867629 0.4484569
                 14164
                           14165
                                     14166
                                               14167
                                                          14168
## Cluster 1 0.1688767 0.1594350 0.1585955 0.1534377 0.1491353 0.1574668 0.1603329
## Cluster 2 0.1748123 0.1647038 0.1582610 0.1446657 0.1471114 0.1455396 0.1406510
## Cluster 3 0.2665177 0.2330681 0.2068525 0.1994780 0.1936511 0.1914482 0.1878865
## Cluster 4 0.2415343 0.2121444 0.2121769 0.2186787 0.2198736 0.2361227 0.2321227
## Cluster 5 0.3769871 0.3212716 0.2873276 0.2653879 0.2400388 0.2481983 0.2254440
                 14171
                           14172
                                     14173
                                               14174
                                                         14175
                                                                    14176
                                                                              14177
## Cluster 1 0.1665199 0.1771552 0.1981180 0.2390292 0.3672374 0.5157785 0.5413462
## Cluster 2 0.1582522 0.1783490 0.2366569 0.2639267 0.4181701 0.4117361 0.4189091
## Cluster 3 0.1867589 0.2074383 0.2366468 0.2578766 0.3160426 0.3778043 0.4320340
## Cluster 4 0.2523610 0.3319386 0.4520072 0.5957220 0.7114296 0.7645740 0.6959711
## Cluster 5 0.2282414 0.2523664 0.2336422 0.2594397 0.3572241 0.3618405 0.4192759
                                     14180
                                                         14182
                 14178
                           14179
                                               14181
                                                                    14183
## Cluster 1 0.4939231 0.4878064 0.4357440 0.4464085 0.4855849 0.4956446 0.4683103
## Cluster 2 0.2999120 0.2601789 0.2360557 0.2627478 0.2319150 0.2086891 0.2144956
## Cluster 3 0.4109688 0.4121631 0.4123787 0.4511376 0.4633730 0.4951433 0.4812014
## Cluster 4 0.5128014 0.4619314 0.4460578 0.4200866 0.4163177 0.4369170 0.3758989
## Cluster 5 0.3664698 0.3622284 0.3404828 0.3274353 0.3245474 0.2893276 0.3162716
                 14185
                           14186
                                     14187
                                               14188
                                                         14189
                                                                    14190
                                                                              14191
## Cluster 1 0.4805875 0.4587056 0.4842573 0.4479721 0.4329788 0.4196286 0.4264576
## Cluster 2 0.2336510 0.2330938 0.2541290 0.2398035 0.2174370 0.2276598 0.2400587
## Cluster 3 0.4896908 0.5435957 0.5738837 0.5592255 0.5206525 0.5248539 0.5962865
## Cluster 4 0.3972058 0.4547437 0.4232816 0.4763466 0.4836931 0.4540325 0.4101372
## Cluster 5 0.3166379 0.3390000 0.3184569 0.3263750 0.3548664 0.3546164 0.3444181
                           14193
                                               14195
                                                          14196
##
                 14192
                                     14194
                                                                    14197
                                                                              14198
## Cluster 1 0.4866658 0.5281645 0.6587454 0.7956804 0.9255942 0.8941127 0.7650531
## Cluster 2 0.2619853 0.2921144 0.3318240 0.4126364 0.5739208 0.6508446 0.6482845
## Cluster 3 0.6544227 0.7101035 0.7419404 0.7474709 0.7188553 0.7055887 0.6692199
## Cluster 4 0.4562166 0.5415848 0.6093069 0.7280469 0.6719206 0.6127617 0.5671480
## Cluster 5 0.3594224 0.3811681 0.4099267 0.4391250 0.5296638 0.4817500 0.5102284
##
                 14199
                           14200
                                     14201
                                               14202
                                                         14203
                                                                    14204
                                                                              14205
```

```
## Cluster 1 0.7294523 0.7424164 0.7227308 0.7728767 0.8159973 0.8120889 0.7374058
## Cluster 2 0.7422639 0.8159091 0.7943343 0.8384457 0.9291642 0.8710235 0.7995279
## Cluster 3 0.7085475 0.7221589 0.7382979 0.7292979 0.7983092 0.8365972 0.8276922
## Cluster 4 0.5995993 0.5660108 0.5773285 0.6101841 0.6661444 0.6569278 0.5899422
## Cluster 5 0.5268276 0.5281078 0.5567845 0.5324052 0.6762414 0.7248664 0.7199914
                 14206
                           14207
                                               14209
                                                         14210
##
                                     14208
                                                                    14211
## Cluster 1 0.6064854 0.5027785 0.3929310 0.2941538 0.2289907 0.1877878 0.1673912
## Cluster 2 0.6745455 0.5871584 0.4330176 0.3293812 0.2260528 0.1928328 0.1672727
## Cluster 3 0.7359787 0.6772511 0.5626496 0.4572071 0.3765943 0.3032340 0.2431376
## Cluster 4 0.4981552 0.4441625 0.3835523 0.3337040 0.2907798 0.2511588 0.2414404
  Cluster 5 0.7437371 0.7772888 0.7363879 0.5582716 0.4891034 0.4478750 0.3692543
                 14213
                           14214
                                     14215
                                               14216
                                                         14217
                                                                    14218
## Cluster 1 0.1620385 0.1562958 0.1529854 0.1539377 0.1490265 0.1528581 0.1672639
## Cluster 2 0.1584956 0.1539853 0.1486716 0.1430235 0.1377361 0.1331026 0.1685161
## Cluster 3 0.2148681 0.2033901 0.1961872 0.1897376 0.1869106 0.1866950 0.1963986
## Cluster 4 0.2422419 0.2415632 0.2403574 0.2275271 0.2342671 0.2220469 0.2514224
## Cluster 5 0.3316724 0.2901121 0.2572716 0.2464784 0.2343879 0.2379138 0.2218319
##
                 14220
                           14221
                                     14222
                                               14223
                                                         14224
                                                                    14225
                                                                              14226
## Cluster 1 0.1867666 0.2053939 0.2491180 0.3831857 0.5170782 0.5460942 0.5022321
## Cluster 2 0.1943050 0.2583021 0.3337067 0.4573812 0.4696745 0.4559648 0.3072111
## Cluster 3 0.2124014 0.2391957 0.2829688 0.3366170 0.3785915 0.4438043 0.4391050
## Cluster 4 0.3094152 0.4523827 0.6190975 0.7765090 0.7628412 0.7347292 0.5496462
## Cluster 5 0.2474009 0.2588147 0.2709655 0.3644397 0.3792026 0.4196164 0.4037586
                 14227
                           14228
                                     14229
                                               14230
                                                         14231
                                                                    14232
## Cluster 1 0.4731379 0.5042268 0.4918926 0.4622255 0.4561459 0.4187029 0.4238621
## Cluster 2 0.2788035 0.2902581 0.2662434 0.2355718 0.2135220 0.1971496 0.2170469
## Cluster 3 0.4498596 0.4331887 0.4538950 0.4641418 0.5221333 0.4742099 0.4815943
## Cluster 4 0.4754440 0.4182744 0.4287365 0.4537509 0.4313141 0.3724296 0.3974838
## Cluster 5 0.3470216 0.3713707 0.3558664 0.3205862 0.3326509 0.3227888 0.3229310
                 14234
                           14235
                                     14236
                                               14237
                                                         14238
                                                                    14239
                                                                              14240
## Cluster 1 0.4282321 0.4449854 0.4262308 0.4116552 0.4274602 0.4463873 0.5031432
## Cluster 2 0.2569560 0.2619883 0.2182287 0.2725689 0.2198944 0.2619296 0.2814457
## Cluster 3 0.4955121 0.5316128 0.5123603 0.5041007 0.5142879 0.5286411 0.6221674
## Cluster 4 0.4637798 0.4409711 0.4287545 0.3867112 0.4002708 0.4066282 0.4744079
## Cluster 5 0.3447328 0.3539957 0.3317672 0.3211250 0.2947802 0.3469957 0.4102026
                           14242
                                     14243
                                               14244
                                                         14245
                 14241
                                                                    14246
## Cluster 1 0.5277268 0.6577745 0.7828515 0.9307095 0.8861220 0.7468302 0.7808727
## Cluster 2 0.2904516 0.2945748 0.3303109 0.4522141 0.5126041 0.5545865 0.5964545
## Cluster 3 0.6682184 0.6915418 0.6964851 0.7016823 0.6728355 0.6848511 0.6837745
## Cluster 4 0.6082022 0.6895126 0.7459856 0.6428303 0.5504874 0.5475018 0.5672455
## Cluster 5 0.4048491 0.3797069 0.4234353 0.4567414 0.4494957 0.4581552 0.4674267
                 14248
                           14249
                                     14250
                                               14251
                                                         14252
                                                                    14253
                                                                              14254
## Cluster 1 0.7169682 0.7014549 0.7137613 0.8000398 0.8174151 0.7332666 0.6035093
## Cluster 2 0.6462962 0.6914897 0.7332405 0.8031525 0.8552962 0.8199413 0.7016540
## Cluster 3 0.6889163 0.6285801 0.6760752 0.7280894 0.7835121 0.8072567 0.7206794
## Cluster 4 0.5113285 0.5414657 0.5544404 0.6282888 0.5759314 0.5555776 0.4880036
## Cluster 5 0.4986034 0.4923103 0.5424138 0.6252155 0.7069741 0.7224483 0.7442931
                 14255
                           14256
                                     14257
                                                          14259
##
                                               14258
                                                                    14260
                                                                              14261
## Cluster 1 0.5137599 0.3882533 0.2951300 0.2409005 0.2010968 0.1806976 0.1728554
## Cluster 2 0.5738387 0.4348387 0.3356891 0.2416950 0.2109912 0.1840235 0.1641378
## Cluster 3 0.6860440 0.5996794 0.4722369 0.4082723 0.3194496 0.2771986 0.2406496
## Cluster 4 0.4424765 0.3715235 0.3056354 0.2714007 0.2700866 0.2548736 0.2370433
## Cluster 5 0.8091207 0.7843793 0.6175603 0.5130172 0.4266164 0.3484267 0.3318534
##
                 14262
                           14263
                                     14264
                                               14265
                                                         14266
                                                                    14267
                                                                              14268
```

```
## Cluster 1 0.1609682 0.1595252 0.1572334 0.1495013 0.1655491 0.1675013 0.1764072
## Cluster 2 0.1522141 0.1429560 0.1416774 0.1389091 0.1396364 0.1770411 0.1920499
## Cluster 3 0.2200241 0.1994043 0.1940511 0.1877972 0.1873773 0.2028014 0.2253745
## Cluster 4 0.2383394 0.2376895 0.2544585 0.2500903 0.2687220 0.3031300 0.3629134
## Cluster 5 0.2887845 0.2791034 0.2616509 0.2573966 0.2307931 0.2346466 0.2433707
                 14269
                           14270
                                               14272
                                                         14273
##
                                     14271
                                                                    14274
## Cluster 1 0.1968899 0.2344019 0.3590027 0.5053263 0.5307493 0.5365172 0.5241645
## Cluster 2 0.2405543 0.2983783 0.4247566 0.4269883 0.4343079 0.3091026 0.2935982
## Cluster 3 0.2496241 0.2660511 0.3149702 0.3775050 0.4074723 0.4209787 0.4278766
## Cluster 4 0.4455812 0.6173502 0.7594693 0.7464079 0.6664693 0.5642671 0.5410433
  Cluster 5 0.2383707 0.2614655 0.3913836 0.3928362 0.4209353 0.4060819 0.3562284
                                                         14280
                           14277
                                     14278
                 14276
                                               14279
                                                                    14281
                                                                              14282
## Cluster 1 0.5365597 0.4844682 0.4779735 0.4464987 0.4062268 0.3902533 0.4456141
## Cluster 2 0.2875513 0.3115836 0.2847390 0.2400293 0.2335601 0.2274076 0.2268592
## Cluster 3 0.4403660 0.4341660 0.4790823 0.4785362 0.4454241 0.4641149 0.5222780
## Cluster 4 0.4517292 0.4271625 0.4389603 0.3852563 0.3595054 0.3706931 0.3694621
## Cluster 5 0.3319741 0.3388319 0.3642931 0.3344655 0.3318534 0.3510216 0.3667112
##
                 14283
                           14284
                                     14285
                                               14286
                                                         14287
                                                                    14288
                                                                              14289
## Cluster 1 0.4449828 0.4303435 0.4369509 0.4707440 0.4367586 0.4649390 0.5532573
## Cluster 2 0.2610411 0.2648592 0.2455425 0.2164663 0.2606628 0.2759912 0.3050792
## Cluster 3 0.5515957 0.4923475 0.5007901 0.5429433 0.5665546 0.6366057 0.5981504
## Cluster 4 0.3951011 0.4112274 0.4553718 0.3800975 0.3831661 0.5250036 0.6616462
## Cluster 5 0.3465819 0.3403405 0.3311466 0.3358578 0.3556509 0.3599181 0.3755819
                 14290
                           14291
                                     14292
                                               14293
                                                          14294
                                                                    14295
## Cluster 1 0.6325212 0.7062175 0.8111631 0.8341114 0.7497493 0.7206088 0.6861419
## Cluster 2 0.3134545 0.3945015 0.4938915 0.5155308 0.5489413 0.6359384 0.6439824
## Cluster 3 0.6594993 0.6910723 0.6904851 0.7091149 0.6619007 0.6613418 0.6688454
## Cluster 4 0.6154621 0.6436859 0.6748881 0.6363935 0.6528520 0.5558339 0.5354765
## Cluster 5 0.3753276 0.4166336 0.4780560 0.4379224 0.4506336 0.5362026 0.4809397
                 14297
                           14298
                                     14299
                                               14300
                                                         14301
                                                                    14302
                                                                              14303
## Cluster 1 0.6734377 0.7321393 0.7925955 0.8179576 0.7571817 0.6613395 0.5708541
## Cluster 2 0.6022463 0.6677449 0.7440411 0.7926334 0.7998651 0.7589062 0.6216305
## Cluster 3 0.6371957 0.6729248 0.7490142 0.7601986 0.7512411 0.7321348 0.6760355
## Cluster 4 0.5023863 0.5116859 0.5328592 0.5532094 0.5246787 0.4976859 0.4768087
## Cluster 5 0.4653750 0.4600603 0.5542802 0.6449741 0.7144095 0.7270086 0.7942198
                                     14306
                                               14307
                                                         14308
                 14304
                           14305
                                                                    14309
## Cluster 1 0.4743302 0.3709920 0.2796088 0.2328024 0.1887599 0.1769244 0.1673355
## Cluster 2 0.5111848 0.3926246 0.2957331 0.2408592 0.2046070 0.1683695 0.1654487
## Cluster 3 0.6234213 0.5239745 0.4397277 0.3646965 0.3062879 0.2637220 0.2356113
## Cluster 4 0.4251877 0.3887726 0.3461949 0.3234729 0.2531805 0.2226173 0.2377256
## Cluster 5 0.7614914 0.6717414 0.6020216 0.5080043 0.4208750 0.3575647 0.2976767
                 14311
                           14312
                                     14313
                                               14314
                                                         14315
                                                                    14316
                                                                              14317
## Cluster 1 0.1562798 0.1617851 0.1534987 0.1569456 0.1492467 0.1607706 0.1787162
## Cluster 2 0.1447097 0.1466979 0.1488739 0.1480821 0.1682258 0.1650293 0.1891114
## Cluster 3 0.2206695 0.2044000 0.2064496 0.1939404 0.2001887 0.2215901 0.2143589
## Cluster 4 0.2306245 0.2092996 0.2202888 0.2367473 0.2297617 0.2600578 0.3193321
## Cluster 5 0.2535345 0.2498621 0.2361595 0.2247414 0.2345172 0.2295086 0.2345862
                                     14320
##
                 14318
                           14319
                                               14321
                                                          14322
                                                                    14323
                                                                              14324
## Cluster 1 0.1943727 0.2426167 0.3087679 0.4293289 0.5170915 0.5826711 0.6587520
## Cluster 2 0.2045543 0.2702229 0.2981994 0.3119238 0.4001906 0.4235279 0.4127331
## Cluster 3 0.2153645 0.2453603 0.2762610 0.3157759 0.3824014 0.4854823 0.5197901
## Cluster 4 0.3965018 0.4666354 0.5781191 0.5909531 0.5814765 0.6115884 0.5979711
## Cluster 5 0.2600259 0.2737069 0.2890733 0.3645474 0.3816207 0.4484828 0.4661595
##
                 14325
                           14326
                                     14327
                                               14328
                                                         14329
                                                                    14330
                                                                              14331
```

```
## Cluster 1 0.6560584 0.7359271 0.6402918 0.6188992 0.6258568 0.6338276 0.6143528
## Cluster 2 0.4281818 0.3981584 0.4362845 0.4176540 0.4223490 0.4837537 0.4335455
## Cluster 3 0.5597177 0.6167986 0.6540879 0.6446496 0.6878454 0.7055716 0.7052142
## Cluster 4 0.5969856 0.5531372 0.5746101 0.5889097 0.4881336 0.5710722 0.5362166
## Cluster 5 0.4325086 0.4956724 0.4467155 0.4622716 0.4590302 0.5545345 0.5123190
                 14332
                           14333
                                     14334
                                               14335
                                                          14336
##
                                                                    14337
## Cluster 1 0.5704987 0.5541061 0.5434178 0.5042745 0.5071353 0.5262109 0.5844867
## Cluster 2 0.4703959 0.3916188 0.3487625 0.3603372 0.3664927 0.3771525 0.4238915
## Cluster 3 0.6683333 0.6408312 0.6161191 0.5758511 0.5751489 0.5899858 0.5727929
## Cluster 4 0.5178700 0.4831119 0.4860217 0.4434440 0.5381444 0.5570108 0.6211841
  Cluster 5 0.5298147 0.4546422 0.4540603 0.4083922 0.4092672 0.3682802 0.4090345
                 14339
                           14340
                                     14341
                                               14342
                                                          14343
                                                                    14344
                                                                              14345
## Cluster 1 0.6678806 0.7605796 0.7718435 0.7397865 0.7380570 0.7134244 0.6987135
## Cluster 2 0.4268651 0.5461466 0.5831349 0.6339326 0.6761320 0.6581789 0.5971906
## Cluster 3 0.6118312 0.6513050 0.6992397 0.7149404 0.7039348 0.6787844 0.6678028
## Cluster 4 0.6728303 0.7286498 0.6882671 0.6089819 0.6040505 0.5180000 0.4777401
## Cluster 5 0.4459052 0.4643405 0.4534957 0.5271078 0.4627069 0.4502672 0.4671164
##
                 14346
                           14347
                                     14348
                                               14349
                                                          14350
                                                                    14351
                                                                              14352
## Cluster 1 0.6560584 0.6449138 0.6746525 0.6480093 0.5812785 0.5262692 0.4524615
## Cluster 2 0.5764399 0.6445103 0.6929824 0.6957243 0.6634633 0.5611613 0.4865337
## Cluster 3 0.6864369 0.7384851 0.7331702 0.7168851 0.6748950 0.6589191 0.5861574
## Cluster 4 0.4534982 0.5000289 0.5537437 0.5631516 0.4510289 0.4052310 0.3738736
## Cluster 5 0.4809138 0.5445302 0.5910259 0.6922155 0.6101293 0.6546466 0.6533103
                 14353
                           14354
                                     14355
                                               14356
                                                          14357
## Cluster 1 0.3672308 0.3112493 0.2535743 0.2183939 0.1939536 0.1866817 0.1772520
## Cluster 2 0.4088270 0.3190000 0.2556774 0.2275220 0.1808123 0.1704956 0.1619120
## Cluster 3 0.5140709 0.4350099 0.3484610 0.3153050 0.2727745 0.2502894 0.2284567
## Cluster 4 0.3274621 0.2914368 0.2753610 0.2436606 0.2283646 0.2385415 0.2344874
## Cluster 5 0.6300862 0.5585431 0.4809526 0.3994483 0.3367802 0.3088491 0.2861250
##
                 14360
                           14361
                                     14362
                                               14363
                                                          14364
                                                                    14365
                                                                              14366
## Cluster 1 0.1683064 0.1626326 0.1588634 0.1642255 0.1643117 0.1704920 0.1912467
## Cluster 2 0.1549238 0.1638504 0.1486921 0.1806129 0.1771290 0.1810762 0.2010469
## Cluster 3 0.2173050 0.2066511 0.2009475 0.2002326 0.2041830 0.2057816 0.2053121
## Cluster 4 0.2240722 0.2237256 0.2253502 0.2387184 0.2614477 0.3026426 0.3648556
## Cluster 5 0.2762888 0.2568836 0.2475431 0.2448103 0.2480474 0.2713017 0.2541638
                                     14369
                                               14370
                                                          14371
                 14367
                           14368
                                                                    14372
                                                                              14373
## Cluster 1 0.2186167 0.2618846 0.3620186 0.4496817 0.5266737 0.6448249 0.6856592
## Cluster 2 0.2235660 0.2252698 0.2311789 0.3096804 0.4232581 0.4528592 0.5335279
## Cluster 3 0.2189872 0.2442965 0.2578936 0.3140170 0.4063518 0.5093376 0.5630752
## Cluster 4 0.4128412 0.4528195 0.4337401 0.5352383 0.6784116 0.6169458 0.5872888
## Cluster 5 0.2780043 0.2669267 0.3013362 0.3594526 0.3823017 0.4073578 0.4960733
                 14374
                           14375
                                     14376
                                               14377
                                                          14378
                                                                    14379
                                                                              14380
## Cluster 1 0.7497095 0.8022109 0.7698050 0.7420027 0.8125133 0.7469430 0.7156790
## Cluster 2 0.5325924 0.4911320 0.5201760 0.5225601 0.5471114 0.5314927 0.5270880
## Cluster 3 0.6425858 0.6749617 0.7681135 0.7639844 0.8210397 0.8071418 0.7528014
## Cluster 4 0.5818592 0.5542058 0.5991264 0.6463610 0.6152744 0.5899747 0.5549964
## Cluster 5 0.5232672 0.5276466 0.4655216 0.4581595 0.5875129 0.5218362 0.4980129
                           14382
                                     14383
                                                                    14386
##
                 14381
                                               14384
                                                          14385
                                                                              14387
## Cluster 1 0.6854310 0.6005995 0.5510252 0.5375690 0.5482029 0.5924350 0.6988806
## Cluster 2 0.5373724 0.4814311 0.4492551 0.4231584 0.4706804 0.4548534 0.4837918
## Cluster 3 0.7558511 0.6669645 0.6777986 0.6401943 0.6443461 0.6699177 0.6990298
## Cluster 4 0.5510614 0.4553069 0.4623249 0.5180433 0.6081408 0.6190614 0.6295343
## Cluster 5 0.5239009 0.5083233 0.4543621 0.4931466 0.4461638 0.4722026 0.5002543
##
                 14388
                           14389
                                     14390
                                               14391
                                                          14392
                                                                    14393
                                                                              14394
```

```
## Cluster 1 0.7375053 0.7403302 0.7033674 0.7142891 0.7130796 0.6722785 0.7187095
## Cluster 2 0.5156657 0.6323724 0.6850088 0.6519384 0.7248827 0.7328123 0.7693226
## Cluster 3 0.6623617 0.6294227 0.6462879 0.6295418 0.6501546 0.6496085 0.6918567
## Cluster 4 0.5829892 0.5977545 0.6096751 0.5548700 0.5354477 0.5809639 0.5716643
## Cluster 5 0.5117155 0.5162974 0.5412457 0.5556595 0.5826638 0.5635172 0.5766681
                 14395
                           14396
                                     14397
                                               14398
                                                         14399
                                                                    14400
##
## Cluster 1 0.7430477 0.7244907 0.6687135 0.5733223 0.4834973 0.3798422 0.2820544
## Cluster 2 0.8355161 0.8615689 0.8340645 0.7141114 0.5732698 0.4559267 0.3342874
## Cluster 3 0.7556837 0.7594553 0.7452057 0.6987773 0.6052950 0.5440057 0.4429305
## Cluster 4 0.5488736 0.5475523 0.5487978 0.4738700 0.4760433 0.3796787 0.3224404
  Cluster 5 0.6779009 0.7230474 0.7837802 0.7211078 0.7536207 0.6692543 0.5670345
                           14403
                                     14404
                 14402
                                               14405
                                                         14406
                                                                    14407
                                                                              14408
## Cluster 1 0.2235053 0.1900000 0.1649682 0.1634005 0.1513011 0.1548700 0.1479151
## Cluster 2 0.2715865 0.2072551 0.1752757 0.1579032 0.1498710 0.1426481 0.1420499
## Cluster 3 0.3667702 0.2998766 0.2682950 0.2353333 0.2216028 0.2060993 0.2028227
## Cluster 4 0.2676859 0.2343177 0.2399639 0.2377365 0.2265271 0.2244693 0.2149242
## Cluster 5 0.4702457 0.3536293 0.3281552 0.3018276 0.2617500 0.2404397 0.2402069
##
                 14409
                           14410
                                     14411
                                               14412
                                                         14413
                                                                    14414
                                                                              14415
## Cluster 1 0.1546459 0.1610159 0.1585371 0.1670663 0.1882785 0.2337560 0.3587268
## Cluster 2 0.1437537 0.1450411 0.1668240 0.1843783 0.2201496 0.2893754 0.4150000
## Cluster 3 0.1930752 0.1929929 0.1916851 0.1994369 0.2307702 0.2458624 0.3133220
## Cluster 4 0.2186101 0.2222238 0.2513682 0.3268953 0.4116282 0.5721913 0.8169892
## Cluster 5 0.2180172 0.2269009 0.2405603 0.2214612 0.2248664 0.2568103 0.3467672
                 14416
                           14417
                                     14418
                                               14419
                                                         14420
                                                                    14421
## Cluster 1 0.5228156 0.5290902 0.5179443 0.5083833 0.4850053 0.4779072 0.4629244
## Cluster 2 0.4519912 0.3873519 0.2970938 0.2599062 0.2620968 0.2589326 0.2458944
## Cluster 3 0.3545801 0.4203603 0.4267589 0.3888071 0.4360766 0.4834383 0.4773447
## Cluster 4 0.7651264 0.6918448 0.5883971 0.4503971 0.4106895 0.3738809 0.3122166
## Cluster 5 0.4064957 0.4067155 0.3439957 0.3499440 0.3426466 0.3223103 0.3222328
##
                 14423
                           14424
                                     14425
                                               14426
                                                         14427
                                                                    14428
                                                                              14429
## Cluster 1 0.4345531 0.4461618 0.4493859 0.4728408 0.4709178 0.4595332 0.4297308
## Cluster 2 0.2496188 0.2757038 0.2862962 0.2579912 0.2680117 0.2619648 0.2758387
## Cluster 3 0.4852170 0.4876482 0.5063660 0.5340440 0.5437348 0.5139560 0.5217177
## Cluster 4 0.3328773 0.4124838 0.4276065 0.4014910 0.4192383 0.3866498 0.4071119
## Cluster 5 0.3247457 0.3243276 0.3038362 0.3452500 0.3815129 0.3615733 0.3466724
                                     14432
                                               14433
                 14430
                           14431
                                                         14434
                                                                    14435
                                                                              14436
## Cluster 1 0.4399310 0.4778501 0.5191684 0.5941141 0.7449894 0.8546857 0.9472586
## Cluster 2 0.2372991 0.2730674 0.2678534 0.2648094 0.3438094 0.4284780 0.6035103
## Cluster 3 0.5406312 0.5512085 0.5850426 0.6515404 0.7123021 0.7573262 0.7572738
## Cluster 4 0.4067473 0.3992166 0.4888881 0.6261805 0.5842599 0.7189964 0.6900505
## Cluster 5 0.3400302 0.3342026 0.3459224 0.3803664 0.3763276 0.4273060 0.5013836
                 14437
                           14438
                                     14439
                                               14440
                                                         14441
                                                                    14442
                                                                              14443
## Cluster 1 0.9100146 0.7681021 0.7843448 0.7513210 0.7371393 0.7115716 0.7621340
## Cluster 2 0.6664399 0.6779736 0.7278387 0.7245924 0.7407566 0.6917713 0.7817449
## Cluster 3 0.6941021 0.6517504 0.6544979 0.7056199 0.6774369 0.6724213 0.7429035
## Cluster 4 0.6621480 0.6314332 0.5939603 0.5383032 0.5125776 0.5524477 0.5737401
## Cluster 5 0.5801552 0.6135603 0.6351810 0.6062112 0.5841207 0.5475129 0.6406681
##
                 14444
                           14445
                                     14446
                                               14447
                                                          14448
                                                                    14449
                                                                              14450
## Cluster 1 0.7777639 0.7345451 0.6126751 0.4864377 0.3764072 0.2842149 0.2288753
## Cluster 2 0.8908651 0.7514076 0.6785718 0.5431261 0.4281994 0.3068475 0.2345836
## Cluster 3 0.7991191 0.7863504 0.7303050 0.6766170 0.5907390 0.4393489 0.3524340
## Cluster 4 0.5795704 0.5499061 0.4624801 0.4272708 0.3584513 0.2939134 0.2331191
## Cluster 5 0.7261897 0.8095905 0.7729095 0.8013578 0.7813017 0.5921078 0.4910043
##
                 14451
                           14452
                                     14453
                                               14454
                                                         14455
                                                                    14456
                                                                              14457
```

```
## Cluster 1 0.1908873 0.1716857 0.1608488 0.1561910 0.1514629 0.1474297 0.1476605
## Cluster 2 0.1879501 0.1644047 0.1565396 0.1504868 0.1476686 0.1401789 0.1434399
## Cluster 3 0.2854028 0.2473745 0.2207759 0.2122865 0.1985035 0.1937504 0.1877489
## Cluster 4 0.2241841 0.2362888 0.2121372 0.2076282 0.2373394 0.2318159 0.2295090
## Cluster 5 0.4440905 0.3522371 0.2972155 0.2497328 0.2303060 0.2420431 0.2398793
                                                         14462
                 14458
                           14459
                                     14460
                                               14461
                                                                    14463
## Cluster 1 0.1527440 0.1543939 0.1678183 0.1859602 0.2408395 0.3725729 0.4891950
## Cluster 2 0.1366012 0.1569941 0.1782317 0.2513402 0.3261760 0.3823167 0.4627947
## Cluster 3 0.1916681 0.1991901 0.2117787 0.2337191 0.2773702 0.3477801 0.3835816
## Cluster 4 0.2388195 0.2522022 0.3312708 0.4110253 0.6031119 0.8605415 0.8259242
  Cluster 5 0.2179784 0.2106940 0.2077629 0.2299569 0.2536767 0.3655302 0.3839914
                                     14467
                 14465
                           14466
                                               14468
                                                         14469
                                                                    14470
## Cluster 1 0.5275716 0.5463064 0.5038156 0.5027507 0.4728660 0.4498369 0.4099032
## Cluster 2 0.4305103 0.3398827 0.2557683 0.2556569 0.2380997 0.2333900 0.1950352
## Cluster 3 0.4229106 0.4298014 0.4084794 0.4430355 0.4702128 0.4521220 0.5188794
## Cluster 4 0.6642563 0.5434693 0.4487148 0.4401661 0.3698267 0.3781661 0.3925596
## Cluster 5 0.4310690 0.3810129 0.3262069 0.3462888 0.3286552 0.3155172 0.3005345
##
                 14472
                           14473
                                     14474
                                               14475
                                                          14476
                                                                    14477
                                                                              14478
## Cluster 1 0.3865080 0.4092149 0.4527984 0.4793886 0.4305133 0.4179973 0.4498156
## Cluster 2 0.2057097 0.2202962 0.2170176 0.2503021 0.2755044 0.2190469 0.2260029
## Cluster 3 0.4807972 0.4998426 0.4838652 0.5421532 0.4737929 0.4829532 0.5015163
## Cluster 4 0.3644549 0.3702238 0.3947292 0.4048556 0.4121805 0.4062780 0.3622527
## Cluster 5 0.2895302 0.3481853 0.3557198 0.3079181 0.3048534 0.3153147 0.3472069
                 14479
                           14480
                                     14481
                                               14482
                                                          14483
                                                                    14484
## Cluster 1 0.4708011 0.4908939 0.5676472 0.7083674 0.8615716 0.9611141 0.8481101
## Cluster 2 0.2546979 0.2612933 0.2701408 0.3405220 0.4239238 0.5843050 0.6206481
## Cluster 3 0.5478610 0.6290780 0.6751489 0.7129773 0.7298496 0.7133816 0.7071262
## Cluster 4 0.3830000 0.4937112 0.6112274 0.6600722 0.6726137 0.7495776 0.6586606
## Cluster 5 0.3501379 0.3402845 0.4014310 0.4210819 0.4253578 0.4746034 0.4664267
                 14486
                           14487
                                     14488
                                               14489
                                                         14490
                                                                    14491
                                                                              14492
## Cluster 1 0.8029934 0.7571141 0.7748156 0.7480225 0.7604390 0.7626684 0.7844244
## Cluster 2 0.6969003 0.7505689 0.7944516 0.8261026 0.8363284 0.9591496 0.9643900
## Cluster 3 0.6742482 0.7104894 0.7181447 0.7239447 0.7575177 0.7902695 0.7952028
## Cluster 4 0.6220614 0.5937292 0.5508953 0.5641119 0.5872527 0.5901480 0.6094621
## Cluster 5 0.4990776 0.5070043 0.5332241 0.5527026 0.5617155 0.6606552 0.7390474
                                     14495
                                               14496
                 14493
                           14494
                                                         14497
                                                                    14498
## Cluster 1 0.7124536 0.5726698 0.4666897 0.3722427 0.2989881 0.2340345 0.1867931
## Cluster 2 0.8750176 0.7738035 0.5681994 0.4237302 0.3071642 0.2341994 0.2014809
## Cluster 3 0.7997674 0.7678723 0.6653376 0.5734950 0.4570482 0.3601929 0.2923929
## Cluster 4 0.5424657 0.4859242 0.4354007 0.3506570 0.2982527 0.2539639 0.2534621
## Cluster 5 0.7555948 0.7260345 0.7348534 0.6867629 0.5903190 0.4907241 0.4328491
                 14500
                           14501
                                     14502
                                               14503
                                                         14504
                                                                    14505
                                                                              14506
## Cluster 1 0.1751485 0.1638064 0.1527891 0.1510146 0.1454350 0.1470292 0.1542294
## Cluster 2 0.1748387 0.1650499 0.1536804 0.1457419 0.1427361 0.1440088 0.1557566
## Cluster 3 0.2541447 0.2218284 0.2013816 0.1897943 0.1962397 0.1877645 0.1841418
## Cluster 4 0.2320758 0.2107906 0.2165379 0.2274513 0.2159567 0.2122852 0.2411769
## Cluster 5 0.3471078 0.2895172 0.2931552 0.2813017 0.2476940 0.2610560 0.2339483
                           14508
                                     14509
##
                 14507
                                               14510
                                                         14511
                                                                    14512
                                                                              14513
## Cluster 1 0.1566340 0.1753143 0.1979443 0.2555623 0.3942109 0.5251340 0.5643568
## Cluster 2 0.1729971 0.1955103 0.2310557 0.2925689 0.4019736 0.4224545 0.4063226
## Cluster 3 0.1922582 0.2068965 0.2308340 0.2591957 0.3540766 0.4042865 0.4606241
## Cluster 4 0.2595199 0.3170505 0.3769025 0.5712960 0.7566895 0.8326462 0.6591841
## Cluster 5 0.2263621 0.2408707 0.2469397 0.2700216 0.3655991 0.3766379 0.4283707
##
                 14514
                           14515
                                     14516
                                               14517
                                                         14518
                                                                    14519
                                                                              14520
```

```
## Cluster 1 0.5134403 0.5183740 0.4602042 0.4514098 0.4244257 0.4151605 0.3777573
## Cluster 2 0.3090323 0.2639326 0.2568123 0.2526921 0.2388065 0.2267595 0.2054956
## Cluster 3 0.4790312 0.4590496 0.4477844 0.4256128 0.4225348 0.4154511 0.4220596
## Cluster 4 0.5193899 0.4772888 0.4312924 0.4607401 0.4239711 0.4350144 0.3995523
## Cluster 5 0.4499009 0.3615991 0.3346983 0.2942716 0.2974095 0.2793966 0.3201940
                 14521
                           14522
                                               14524
                                                         14525
                                                                    14526
                                     14523
## Cluster 1 0.3943714 0.4497175 0.4590995 0.4519920 0.4275809 0.4415557 0.4722905
## Cluster 2 0.1982610 0.2188006 0.2437771 0.2335689 0.2433050 0.2026305 0.2381935
## Cluster 3 0.4811688 0.5007262 0.5401943 0.4862652 0.4868298 0.4992539 0.5072312
## Cluster 4 0.4375921 0.4142888 0.4208412 0.3728448 0.4213249 0.4605560 0.4649747
  Cluster 5 0.3076509 0.3382974 0.3439957 0.3117629 0.3405043 0.3715086 0.3477931
                           14529
                                     14530
                 14528
                                               14531
                                                         14532
                                                                    14533
                                                                              14534
## Cluster 1 0.4912825 0.5705915 0.6552891 0.7861989 0.8813050 0.8846578 0.7831207
## Cluster 2 0.2525308 0.2964985 0.3750733 0.4100411 0.5504868 0.6359472 0.6242727
## Cluster 3 0.5529461 0.6019078 0.7129418 0.7042440 0.6898071 0.7016340 0.6457319
## Cluster 4 0.5192094 0.6142780 0.6976859 0.6876751 0.7024874 0.6721769 0.5784440
## Cluster 5 0.3550647 0.4242328 0.4134397 0.4689181 0.5253966 0.4811983 0.4687888
##
                 14535
                           14536
                                     14537
                                               14538
                                                         14539
                                                                    14540
                                                                              14541
## Cluster 1 0.7359682 0.7262347 0.7149801 0.6939947 0.7344668 0.7885889 0.7400345
## Cluster 2 0.7056716 0.7407977 0.8172727 0.7852698 0.8465513 0.9056364 0.8751114
## Cluster 3 0.6617078 0.6251574 0.6600298 0.6743319 0.6894057 0.7396482 0.8139489
## Cluster 4 0.5817401 0.5686968 0.5150181 0.5600144 0.5887401 0.5525848 0.5255776
## Cluster 5 0.5212500 0.4591121 0.5138578 0.6327931 0.6581595 0.7350388 0.7825043
                 14542
                           14543
                                     14544
                                               14545
                                                          14546
                                                                    14547
## Cluster 1 0.6401777 0.5257016 0.3720849 0.2758621 0.2199111 0.1878793 0.1638687
## Cluster 2 0.7910880 0.5933548 0.4592199 0.3236833 0.2414311 0.2062786 0.1699384
## Cluster 3 0.7609972 0.6758723 0.5395362 0.4461617 0.3600255 0.2884879 0.2447759
## Cluster 4 0.4696823 0.4514838 0.3870866 0.3210289 0.2945632 0.2686534 0.2244874
## Cluster 5 0.8411638 0.8407802 0.6952155 0.6102931 0.5099698 0.4698017 0.3872328
##
                 14549
                           14550
                                     14551
                                               14552
                                                         14553
                                                                    14554
                                                                              14555
## Cluster 1 0.1589138 0.1492546 0.1555186 0.1470040 0.1466313 0.1494814 0.1532679
## Cluster 2 0.1534135 0.1480205 0.1514047 0.1447067 0.1397478 0.1415806 0.1589091
## Cluster 3 0.2143887 0.2108113 0.1950652 0.1899787 0.1842213 0.1842241 0.1880865
## Cluster 4 0.2251408 0.2242563 0.2256173 0.2162744 0.2183177 0.2304946 0.2560542
## Cluster 5 0.3137931 0.2739828 0.2573060 0.2340905 0.2481509 0.2152974 0.2212500
                                     14558
                                               14559
                                                         14560
                 14556
                           14557
                                                                    14561
## Cluster 1 0.1778011 0.1931538 0.2510411 0.3629642 0.4845875 0.5151764 0.5299483
## Cluster 2 0.1916129 0.2336657 0.3434575 0.4030235 0.4958622 0.4198651 0.3105132
## Cluster 3 0.2019050 0.2336624 0.2920184 0.3349078 0.3859589 0.4240156 0.4325929
## Cluster 4 0.3098592 0.3533177 0.6142816 0.7452491 0.8156968 0.6201841 0.4980036
## Cluster 5 0.2304569 0.2363319 0.2809784 0.3950776 0.3943448 0.3898233 0.3542069
                 14563
                           14564
                                     14565
                                               14566
                                                         14567
                                                                    14568
                                                                              14569
## Cluster 1 0.4904390 0.4968528 0.4633064 0.4104576 0.4056671 0.3782401 0.3705517
## Cluster 2 0.2366891 0.2302434 0.2472639 0.2327801 0.2377009 0.2281378 0.2293812
## Cluster 3 0.4232525 0.4427801 0.4353319 0.4290128 0.4404624 0.4603773 0.4573404
## Cluster 4 0.4407690 0.4523574 0.4042491 0.3581877 0.3968881 0.3600758 0.3447365
## Cluster 5 0.3062371 0.3031379 0.2788017 0.3053319 0.3361983 0.2868017 0.3125647
##
                 14570
                           14571
                                     14572
                                               14573
                                                          14574
                                                                    14575
                                                                              14576
## Cluster 1 0.4189721 0.4544138 0.4201737 0.3918634 0.4113899 0.4293316 0.4693103
## Cluster 2 0.2356481 0.2611525 0.2457977 0.2180264 0.2353988 0.2670645 0.2512170
## Cluster 3 0.4726596 0.5024099 0.4930809 0.4572695 0.4959277 0.5505546 0.5821248
## Cluster 4 0.4064729 0.3935668 0.3823791 0.3670325 0.3689819 0.3888195 0.5089892
## Cluster 5 0.3190560 0.3192155 0.3384526 0.3433750 0.3461336 0.3473534 0.3319914
##
                 14577
                           14578
                                     14579
                                               14580
                                                         14581
                                                                    14582
                                                                              14583
```

```
## Cluster 1 0.5320504 0.6464668 0.7852467 0.8927719 0.8638899 0.7469403 0.7930836
## Cluster 2 0.3030821 0.3391173 0.3957243 0.5720762 0.6172141 0.6721202 0.7031994
## Cluster 3 0.6376241 0.7307277 0.7181688 0.7332369 0.7052936 0.7122340 0.7563106
## Cluster 4 0.5666282 0.6997401 0.7201588 0.6874477 0.6952022 0.6345993 0.6124116
## Cluster 5 0.3708793 0.3799741 0.4850431 0.5330517 0.5168578 0.5684138 0.5721810
                           14585
                                     14586
                                               14587
                                                          14588
##
                 14584
                                                                    14589
## Cluster 1 0.7635027 0.7539138 0.7599151 0.7733156 0.7724642 0.6945822 0.5802029
## Cluster 2 0.7634047 0.7461760 0.7659765 0.8120411 0.8807947 0.7972023 0.7174252
## Cluster 3 0.6979035 0.6823674 0.6852057 0.7808170 0.8355163 0.7842525 0.6923291
## Cluster 4 0.5536354 0.5692491 0.5764332 0.6025090 0.5788195 0.5352527 0.4588881
  Cluster 5 0.5426207 0.5276164 0.6052802 0.6120129 0.7154698 0.7362241 0.7538879
                           14592
                 14591
                                     14593
                                               14594
                                                          14595
                                                                    14596
                                                                              14597
## Cluster 1 0.4995451 0.3560146 0.2848966 0.2332308 0.1959390 0.1763966 0.1706989
## Cluster 2 0.6192170 0.4548886 0.3548446 0.2893666 0.2152933 0.1854721 0.1656979
## Cluster 3 0.6569887 0.5492014 0.4295645 0.3474057 0.2939035 0.2606922 0.2338057
## Cluster 4 0.4574729 0.3653213 0.3021408 0.2422238 0.2434982 0.2207762 0.2211877
## Cluster 5 0.7957716 0.6867974 0.5606810 0.5069310 0.4308922 0.3772371 0.2994871
##
                 14598
                           14599
                                     14600
                                               14601
                                                          14602
                                                                    14603
                                                                              14604
## Cluster 1 0.1625371 0.1541592 0.1490663 0.1519483 0.1527387 0.1591061 0.1687984
## Cluster 2 0.1627947 0.1533842 0.1523724 0.1420645 0.1420762 0.1654194 0.1984457
## Cluster 3 0.2157773 0.1987603 0.1911248 0.1852979 0.1842340 0.1959943 0.2081163
## Cluster 4 0.2029964 0.2072491 0.1986101 0.2072419 0.2407978 0.2445560 0.3143394
## Cluster 5 0.2851422 0.2690431 0.2342802 0.2424483 0.2135776 0.2237026 0.2068405
                 14605
                           14606
                                     14607
                                               14608
                                                          14609
                                                                    14610
## Cluster 1 0.1797759 0.2248050 0.3829284 0.5111379 0.5479576 0.5110849 0.5153700
## Cluster 2 0.2357595 0.2779208 0.3323900 0.4174428 0.4313754 0.3382933 0.3140557
## Cluster 3 0.2147660 0.2472184 0.3315844 0.3918794 0.4242723 0.4599064 0.4194440
## Cluster 4 0.4158448 0.5878159 0.7789639 0.8316282 0.6593502 0.5146570 0.4102022
## Cluster 5 0.2134871 0.2298103 0.3730129 0.3807328 0.3753017 0.3647888 0.3444095
##
                 14612
                           14613
                                     14614
                                               14615
                                                          14616
                                                                    14617
                                                                              14618
## Cluster 1 0.4983660 0.4671220 0.4680570 0.4413833 0.4035597 0.4024058 0.4260464
## Cluster 2 0.3281672 0.2573050 0.2581232 0.2607713 0.2711935 0.2415191 0.2392933
## Cluster 3 0.4544596 0.4656709 0.4424738 0.4388000 0.4304709 0.4427121 0.4859277
## Cluster 4 0.4220433 0.4231227 0.3861119 0.3586931 0.3721047 0.3574621 0.3508448
## Cluster 5 0.3847241 0.3332845 0.3331552 0.3429526 0.3067672 0.3450302 0.3406336
                           14620
                                     14621
                                               14622
                                                          14623
                 14619
                                                                    14624
## Cluster 1 0.4627958 0.4197546 0.4128263 0.4075968 0.4371379 0.4615610 0.5280942
## Cluster 2 0.2609883 0.2588416 0.2974194 0.2735543 0.2418534 0.3186598 0.3484487
## Cluster 3 0.5122993 0.5018355 0.5200567 0.5022681 0.5398284 0.5917206 0.6220965
## Cluster 4 0.3487942 0.3646173 0.3795379 0.4077726 0.4339747 0.5204982 0.6029097
## Cluster 5 0.3185216 0.3144138 0.3033405 0.3091422 0.3453836 0.3584310 0.3684914
                 14626
                           14627
                                     14628
                                               14629
                                                          14630
                                                                    14631
                                                                              14632
## Cluster 1 0.6253236 0.7425305 0.8122546 0.8138992 0.7028873 0.6995650 0.7237812
## Cluster 2 0.3279707 0.3619208 0.4785982 0.5468563 0.6375836 0.6847302 0.6520997
## Cluster 3 0.6263418 0.6682241 0.6406340 0.6867830 0.6425617 0.7068553 0.6738482
## Cluster 4 0.6509242 0.6994224 0.6832780 0.6726498 0.5771227 0.5535740 0.5243682
## Cluster 5 0.3964483 0.4279957 0.4846552 0.4599784 0.5632586 0.5986250 0.4793879
##
                 14633
                           14634
                                     14635
                                               14636
                                                          14637
                                                                    14638
                                                                              14639
## Cluster 1 0.6570332 0.6589735 0.6882003 0.7351950 0.6929536 0.6553979 0.5796645
## Cluster 2 0.6426129 0.6130381 0.7374516 0.7885015 0.7886804 0.7852346 0.6594839
## Cluster 3 0.6251645 0.6500667 0.7009816 0.7575149 0.7701603 0.7285787 0.6617163
## Cluster 4 0.4904296 0.4468303 0.5264116 0.5060578 0.5255379 0.4751588 0.4626787
## Cluster 5 0.4665388 0.4786466 0.5258405 0.5893233 0.6641552 0.7100647 0.7165302
##
                 14640
                           14641
                                     14642
                                               14643
                                                          14644
                                                                    14645
                                                                              14646
```

```
## Cluster 1 0.4882241 0.3835531 0.2897294 0.2333382 0.1995597 0.1747719 0.1709032
## Cluster 2 0.5410029 0.4105924 0.3172141 0.2469765 0.1948475 0.1883196 0.1733578
## Cluster 3 0.5900057 0.5029858 0.4167333 0.3376553 0.2953319 0.2592823 0.2321518
## Cluster 4 0.4054729 0.3187978 0.2892130 0.2455379 0.2303718 0.2171769 0.2125090
## Cluster 5 0.6856509 0.6068922 0.5185000 0.4690431 0.3916379 0.3244828 0.2837672
                           14648
                                               14650
                                                          14651
##
                 14647
                                     14649
                                                                    14652
                                                                              14653
## Cluster 1 0.1642149 0.1624284 0.1571658 0.1610769 0.1541897 0.1740305 0.1831313
## Cluster 2 0.1649326 0.1512815 0.1553871 0.1441144 0.1669120 0.1869179 0.1982434
## Cluster 3 0.2163362 0.2054213 0.2136057 0.2072142 0.2045177 0.2081092 0.2228823
## Cluster 4 0.2275632 0.2166679 0.2129747 0.2284404 0.2256643 0.2633574 0.3114946
  Cluster 5 0.2837026 0.2496853 0.2494871 0.2283750 0.2287629 0.2086379 0.1984353
                 14654
                           14655
                                     14656
                                               14657
                                                          14658
                                                                    14659
                                                                              14660
## Cluster 1 0.2204416 0.2685849 0.3399496 0.4296167 0.5151406 0.5898528 0.6277308
## Cluster 2 0.1901056 0.2429707 0.2519355 0.3436188 0.4123812 0.4532610 0.4611114
## Cluster 3 0.2336113 0.2432057 0.2672071 0.3428156 0.3876482 0.4509078 0.5350241
## Cluster 4 0.3737798 0.4896643 0.6121444 0.5747942 0.6946679 0.6761552 0.6068556
## Cluster 5 0.2214871 0.2783103 0.2634741 0.3298147 0.3579784 0.4115216 0.4217543
##
                 14661
                           14662
                                     14663
                                               14664
                                                          14665
                                                                    14666
                                                                              14667
## Cluster 1 0.6728581 0.6539151 0.6552958 0.6501459 0.6370159 0.6725995 0.6704483
## Cluster 2 0.4331613 0.3753724 0.4059003 0.4248123 0.4499267 0.4848974 0.4475630
## Cluster 3 0.5911773 0.5691986 0.5941348 0.6299277 0.6629475 0.6467177 0.6826142
## Cluster 4 0.5392671 0.5730722 0.4702274 0.4947437 0.5037329 0.5460181 0.6111913
## Cluster 5 0.4597629 0.4248707 0.4411983 0.4705948 0.4672586 0.5053190 0.4615043
                 14668
                           14669
                                     14670
                                               14671
                                                          14672
                                                                    14673
## Cluster 1 0.6072732 0.5853607 0.5576472 0.5586817 0.5401711 0.5670756 0.6182188
## Cluster 2 0.4021584 0.4492434 0.4691349 0.4201085 0.3886510 0.3719795 0.4015425
## Cluster 3 0.6497716 0.6494496 0.6304170 0.6294113 0.6578723 0.6651390 0.6568993
## Cluster 4 0.5199097 0.4769386 0.4529314 0.4467076 0.5390578 0.5232274 0.6079170
## Cluster 5 0.4780431 0.4752716 0.4488448 0.3709440 0.3924138 0.4293060 0.4164526
##
                 14675
                           14676
                                     14677
                                               14678
                                                          14679
                                                                    14680
                                                                              14681
## Cluster 1 0.6971194 0.7774881 0.7679695 0.8335650 0.7424377 0.6880477 0.6596074
## Cluster 2 0.4348592 0.5299853 0.6471437 0.6576422 0.6488358 0.5463607 0.6298592
## Cluster 3 0.6703901 0.6734085 0.6654780 0.6908170 0.6782965 0.6689546 0.6726709
## Cluster 4 0.6241191 0.6729964 0.6560975 0.5834910 0.5912816 0.5029567 0.4876534
## Cluster 5 0.4383578 0.5082241 0.5132284 0.4821121 0.5233664 0.5829569 0.5498103
                           14683
                                               14685
                 14682
                                     14684
                                                          14686
                                                                    14687
                                                                              14688
## Cluster 1 0.6586207 0.6457825 0.6400796 0.6261353 0.5674523 0.5236114 0.4160822
## Cluster 2 0.6117038 0.6519296 0.6188182 0.6640411 0.6383988 0.5418534 0.4530733
## Cluster 3 0.6806071 0.7324610 0.7114284 0.7114043 0.6691262 0.6196170 0.5650539
## Cluster 4 0.4855235 0.5092888 0.4722455 0.4918556 0.4468123 0.4288628 0.3857401
## Cluster 5 0.5864655 0.6521681 0.6410216 0.6635948 0.6372241 0.6767802 0.6835603
                 14689
                           14690
                                     14691
                                               14692
                                                          14693
                                                                    14694
                                                                              14695
## Cluster 1 0.3321671 0.2832281 0.2430385 0.2114721 0.1965252 0.1803554 0.1724058
## Cluster 2 0.3928240 0.3226481 0.2674311 0.2174839 0.1885132 0.1725894 0.1752170
## Cluster 3 0.4970936 0.4188355 0.3597872 0.3087220 0.2701518 0.2414525 0.2313092
## Cluster 4 0.3403466 0.2856426 0.2719134 0.2520975 0.2464368 0.2312058 0.2228556
## Cluster 5 0.6065991 0.5985172 0.4664009 0.3823017 0.3731207 0.3270474 0.2981293
                                     14698
                                               14699
                                                          14700
##
                 14696
                           14697
                                                                    14701
                                                                              14702
## Cluster 1 0.1673488 0.1635398 0.1600637 0.1573714 0.1596923 0.1637149 0.1764536
## Cluster 2 0.1625220 0.1551085 0.1533021 0.1648680 0.1821789 0.2023050 0.1792845
## Cluster 3 0.2141305 0.2098397 0.1988936 0.1920355 0.1999135 0.2049475 0.1963730
## Cluster 4 0.2077690 0.2076209 0.2166751 0.2326715 0.2791191 0.3226354 0.3300975
## Cluster 5 0.2579784 0.2721810 0.2311207 0.2313060 0.2134526 0.2238017 0.2391853
##
                 14703
                           14704
                                     14705
                                               14706
                                                          14707
                                                                    14708
                                                                              14709
```

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## Cluster 1 0.1967586 0.2391737 0.3339682 0.4529523 0.5705133 0.5921552 0.7132586
## Cluster 2 0.1914370 0.2158944 0.2380029 0.3037126 0.3877918 0.4212874 0.4793695
## Cluster 3 0.2323447 0.2418057 0.2666043 0.3438071 0.4080979 0.5033972 0.5541816
## Cluster 4 0.4012310 0.4325704 0.4830361 0.6084874 0.6336823 0.5956209 0.5818484
## Cluster 5 0.2390129 0.2723147 0.2810129 0.2975733 0.3794440 0.4288750 0.4893190
                                                          14714
##
                 14710
                           14711
                                     14712
                                               14713
                                                                    14715
                                                                              14716
## Cluster 1 0.6904271 0.7296525 0.7492706 0.7840729 0.7907069 0.7358249 0.7571844
## Cluster 2 0.4549032 0.4797419 0.4627830 0.5108152 0.5760938 0.5750821 0.6077243
## Cluster 3 0.6411603 0.7197787 0.7899617 0.7662284 0.7548199 0.7762113 0.7669163
## Cluster 4 0.5579531 0.5933032 0.5937906 0.6148375 0.5497220 0.6216643 0.5455560
  Cluster 5 0.5375991 0.4978017 0.4699138 0.4574224 0.5614181 0.5077845 0.5097586
                 14717
                           14718
                                     14719
                                               14720
                                                          14721
                                                                    14722
                                                                              14723
## Cluster 1 0.6572507 0.5806034 0.5658700 0.5697865 0.5507374 0.5931061 0.6515066
## Cluster 2 0.5070938 0.4589648 0.4610440 0.4150821 0.3869707 0.3749619 0.4393988
## Cluster 3 0.7834454 0.6775404 0.6954979 0.6924184 0.6601277 0.6453688 0.6245801
## Cluster 4 0.5634874 0.5187220 0.5260939 0.6170036 0.5384224 0.5659134 0.6652527
## Cluster 5 0.4650517 0.4731681 0.4034095 0.4214440 0.4493750 0.4424224 0.4253793
##
                 14724
                           14725
                                     14726
                                               14727
                                                          14728
                                                                    14729
                                                                              14730
## Cluster 1 0.7197520 0.7538753 0.7601645 0.7083462 0.7090358 0.6925822 0.6670928
## Cluster 2 0.5006334 0.5673079 0.6572463 0.6695718 0.6592962 0.6222023 0.7176979
## Cluster 3 0.6604184 0.6537574 0.7077518 0.6882227 0.6859504 0.6373518 0.6593220
## Cluster 4 0.6379856 0.6094224 0.5348556 0.5759097 0.5545523 0.5472455 0.5274116
## Cluster 5 0.4855345 0.4754009 0.4679181 0.5261078 0.4891681 0.5285819 0.5548750
                 14731
                           14732
                                     14733
                                               14734
                                                          14735
                                                                    14736
## Cluster 1 0.6790451 0.7010782 0.6651790 0.5758660 0.4853382 0.3674735 0.2800676
## Cluster 2 0.7455044 0.7749003 0.7456628 0.6389707 0.5540674 0.4149589 0.3310997
## Cluster 3 0.7152369 0.7403092 0.7160440 0.6927362 0.6351858 0.5335319 0.4449291
## Cluster 4 0.5682816 0.5431300 0.5399856 0.4690758 0.4100939 0.3905199 0.2996823
## Cluster 5 0.5960345 0.6280603 0.7172888 0.7527069 0.8214569 0.7065733 0.6036164
##
                 14738
                           14739
                                     14740
                                               14741
                                                          14742
                                                                    14743
                                                                              14744
## Cluster 1 0.2265557 0.1908156 0.1729045 0.1540477 0.1543859 0.1512745 0.1483700
## Cluster 2 0.2693548 0.2089208 0.1803842 0.1732698 0.1574751 0.1480440 0.1439560
## Cluster 3 0.3680142 0.2988369 0.2579787 0.2272312 0.2012043 0.2017915 0.2046057
## Cluster 4 0.2577004 0.2303141 0.2291300 0.2255884 0.2061336 0.2041588 0.1970614
## Cluster 5 0.5132284 0.4475517 0.3642414 0.3301207 0.2916940 0.2844569 0.2629310
                           14746
                                     14747
                                               14748
                                                          14749
                 14745
                                                                    14750
                                                                              14751
## Cluster 1 0.1534483 0.1542533 0.1576194 0.1658952 0.1868912 0.2443462 0.3568873
## Cluster 2 0.1458856 0.1399677 0.1602786 0.1892170 0.2488856 0.3013666 0.4276364
## Cluster 3 0.1935277 0.1920624 0.1949121 0.2033035 0.2277546 0.2632199 0.3042043
## Cluster 4 0.2245343 0.2511372 0.2444188 0.3238917 0.4379964 0.6183249 0.7189025
## Cluster 5 0.2561767 0.2186595 0.2603578 0.2071724 0.2208836 0.2561681 0.3393922
                 14752
                           14753
                                     14754
                                               14755
                                                          14756
                                                                    14757
                                                                              14758
## Cluster 1 0.5258833 0.5489111 0.5475875 0.5326751 0.4989337 0.4990292 0.4940332
## Cluster 2 0.4027537 0.4553548 0.3376950 0.2611144 0.2131114 0.2461965 0.2201261
## Cluster 3 0.3728511 0.3999617 0.4059929 0.4064879 0.4335603 0.4202965 0.4101035
## Cluster 4 0.9365307 0.6868051 0.5033141 0.4628087 0.4123574 0.3376679 0.3636570
## Cluster 5 0.3970086 0.4391078 0.3760603 0.3756422 0.3426897 0.3299655 0.3311767
                 14759
                           14760
                                                          14763
##
                                     14761
                                               14762
                                                                    14764
                                                                              14765
## Cluster 1 0.4412095 0.3812825 0.4651194 0.4187361 0.4356671 0.4011154 0.4067042
## Cluster 2 0.2221378 0.2294985 0.2306540 0.2947126 0.3020059 0.2421701 0.2256393
## Cluster 3 0.4294142 0.4403589 0.4826170 0.4936482 0.5420936 0.5141901 0.4924099
## Cluster 4 0.3740758 0.3607509 0.3395632 0.3762563 0.4117220 0.4099928 0.3719242
## Cluster 5 0.3549310 0.3483664 0.3264526 0.3541250 0.3808750 0.3419612 0.3512069
##
                 14766
                           14767
                                     14768
                                               14769
                                                          14770
                                                                    14771
                                                                              14772
```

```
## Cluster 1 0.4256194 0.4157759 0.4477467 0.5552135 0.6657918 0.8310769 0.9176976
## Cluster 2 0.2302053 0.2679179 0.2369941 0.2685806 0.3007654 0.3922199 0.5176540
## Cluster 3 0.5041064 0.5521163 0.6022397 0.6386227 0.7178794 0.7060993 0.7038468
## Cluster 4 0.3912960 0.4333718 0.5502383 0.6101697 0.6179206 0.6629314 0.7134549
## Cluster 5 0.3158836 0.3505905 0.3792414 0.3933707 0.3715388 0.4085388 0.4541595
##
                 14773
                           14774
                                     14775
                                               14776
                                                         14777
                                                                    14778
## Cluster 1 0.8063621 0.7348103 0.7308992 0.7167334 0.6698541 0.6490212 0.7169615
## Cluster 2 0.6228270 0.6453871 0.7296950 0.7326452 0.7401965 0.6890323 0.8140205
## Cluster 3 0.6693064 0.6148156 0.6293489 0.6324965 0.6415106 0.6600468 0.6841035
## Cluster 4 0.5997148 0.5636570 0.5662022 0.5645379 0.5351480 0.5369278 0.5747437
  Cluster 5 0.4818664 0.5208621 0.5229828 0.5060216 0.4777457 0.6113233 0.6190431
                 14780
                                     14782
                           14781
                                               14783
                                                         14784
                                                                    14785
                                                                              14786
## Cluster 1 0.7131897 0.6934310 0.6010716 0.5081326 0.3624151 0.2707228 0.2175424
## Cluster 2 0.8659091 0.8032845 0.7215073 0.6068328 0.4519912 0.3104633 0.2329619
## Cluster 3 0.7561121 0.7345078 0.6857050 0.6360340 0.5937078 0.4524085 0.3388652
## Cluster 4 0.5844260 0.5179928 0.4992347 0.4331949 0.3823646 0.3160505 0.2696715
## Cluster 5 0.6287931 0.7279784 0.7423836 0.7515345 0.7518405 0.6203707 0.4840259
##
                 14787
                           14788
                                     14789
                                               14790
                                                         14791
                                                                    14792
                                                                              14793
## Cluster 1 0.1792905 0.1653342 0.1573833 0.1518926 0.1490955 0.1507944 0.1547573
## Cluster 2 0.2010616 0.1836833 0.1527625 0.1501173 0.1468123 0.1515748 0.1416246
## Cluster 3 0.2842695 0.2364383 0.2240993 0.2070028 0.2007418 0.1967674 0.1975759
## Cluster 4 0.2282599 0.2052852 0.1964224 0.1973718 0.1951733 0.1904801 0.2007726
## Cluster 5 0.4206983 0.3234052 0.2951422 0.2687457 0.2417328 0.2399440 0.2397112
                 14794
                           14795
                                     14796
                                               14797
                                                         14798
                                                                    14799
## Cluster 1 0.1477798 0.1584708 0.1665027 0.1990000 0.2495159 0.3684005 0.4998130
## Cluster 2 0.1439912 0.1593842 0.2181173 0.2476276 0.3092082 0.4478974 0.4217801
## Cluster 3 0.1948511 0.2013333 0.2055560 0.2395787 0.2693475 0.3338894 0.3852312
## Cluster 4 0.2054079 0.2180614 0.3080036 0.4420650 0.5831191 0.7105957 0.8043321
## Cluster 5 0.2248276 0.2188836 0.2166164 0.2418405 0.2673578 0.3557069 0.3970560
##
                 14801
                           14802
                                     14803
                                               14804
                                                         14805
                                                                    14806
                                                                              14807
## Cluster 1 0.5215358 0.4962454 0.5076830 0.4815265 0.4547334 0.4292944 0.4589602
## Cluster 2 0.4069941 0.3117449 0.2698856 0.2569062 0.2540469 0.2576393 0.2070997
## Cluster 3 0.4492511 0.4442667 0.4071149 0.3938709 0.4221858 0.4365418 0.4473475
## Cluster 4 0.6600072 0.5186101 0.4109458 0.3998556 0.3373755 0.3721300 0.3610217
## Cluster 5 0.3682026 0.3316681 0.3285129 0.3163879 0.3275733 0.3155345 0.3170129
                                                         14812
                 14808
                           14809
                                     14810
                                               14811
                                                                    14813
## Cluster 1 0.4128767 0.4030172 0.4282533 0.4740504 0.4448594 0.4232971 0.4332175
## Cluster 2 0.2086246 0.2136070 0.2054868 0.2655718 0.2680000 0.2448065 0.2551701
## Cluster 3 0.4666695 0.4914213 0.5107631 0.5400950 0.4998496 0.5225291 0.5017702
## Cluster 4 0.3779386 0.3714801 0.3673971 0.3677509 0.3760939 0.4043827 0.3909350
## Cluster 5 0.3340948 0.3348664 0.3299741 0.3462716 0.3621121 0.3546250 0.3279698
                 14815
                           14816
                                     14817
                                               14818
                                                         14819
                                                                    14820
                                                                              14821
## Cluster 1 0.4607560 0.4811419 0.5613064 0.6760040 0.8400451 0.9281538 0.8666631
## Cluster 2 0.2614633 0.2916100 0.3408827 0.3910000 0.4744282 0.5846100 0.6577566
## Cluster 3 0.5624369 0.5904624 0.6554199 0.6983333 0.7551007 0.7234482 0.7288922
## Cluster 4 0.3910433 0.4987653 0.6105884 0.5994477 0.6876643 0.7170542 0.7162058
## Cluster 5 0.3324052 0.3706853 0.4158966 0.4155345 0.4418362 0.5543966 0.5635474
                           14823
                                                          14826
##
                 14822
                                     14824
                                               14825
                                                                    14827
                                                                              14828
## Cluster 1 0.8236737 0.8119231 0.7836751 0.7738408 0.7591008 0.7559947 0.7583117
## Cluster 2 0.6970645 0.7431672 0.8405982 0.8639941 0.8341672 0.8118446 0.8825601
## Cluster 3 0.7306908 0.7201262 0.7300028 0.7505716 0.7242865 0.7652454 0.7713801
## Cluster 4 0.6169639 0.5853574 0.5446534 0.5320108 0.6260542 0.6514152 0.5652563
## Cluster 5 0.5671595 0.5451078 0.5296983 0.5917069 0.5851853 0.6580259 0.7480474
##
                 14829
                           14830
                                     14831
                                               14832
                                                         14833
                                                                    14834
                                                                              14835
```

```
## Cluster 1 0.6973714 0.6043011 0.5025849 0.3745053 0.2702679 0.2167679 0.1824761
## Cluster 2 0.7716833 0.7441525 0.6081408 0.4196276 0.3195044 0.2429619 0.2000645
## Cluster 3 0.7719121 0.7087234 0.6227489 0.5504610 0.4263816 0.3313816 0.2942879
## Cluster 4 0.5464874 0.4949747 0.4229531 0.3421805 0.2659711 0.2390325 0.2221516
## Cluster 5 0.7791853 0.7931638 0.8733534 0.7778190 0.6552543 0.5516207 0.4596293
                 14836
                           14837
                                                         14840
##
                                     14838
                                               14839
                                                                    14841
## Cluster 1 0.1751233 0.1611393 0.1550385 0.1563077 0.1520889 0.1555464 0.1621883
## Cluster 2 0.1733871 0.1666804 0.1487801 0.1496041 0.1433783 0.1426833 0.1457214
## Cluster 3 0.2496823 0.2274709 0.2071277 0.2038766 0.1962539 0.1970255 0.1985135
## Cluster 4 0.2045993 0.1963718 0.2015487 0.2119639 0.2026715 0.2006606 0.2239856
  Cluster 5 0.3709957 0.3262500 0.2979009 0.2777672 0.2687586 0.2676853 0.2360129
                                     14845
                 14843
                           14844
                                               14846
                                                         14847
                                                                    14848
                                                                              14849
## Cluster 1 0.1654231 0.1790186 0.1937865 0.2698289 0.3598859 0.5214721 0.5331088
## Cluster 2 0.1523607 0.1949384 0.2557097 0.3508739 0.4051202 0.4259941 0.4238152
## Cluster 3 0.1991064 0.2130241 0.2526227 0.2942312 0.3523050 0.4148837 0.4390582
## Cluster 4 0.2496823 0.3566570 0.4279242 0.6774116 0.7404007 0.8601697 0.6415632
## Cluster 5 0.2494224 0.2397845 0.2432759 0.2508362 0.2969095 0.3618534 0.4172672
##
                 14850
                           14851
                                     14852
                                               14853
                                                         14854
                                                                    14855
                                                                              14856
## Cluster 1 0.4908064 0.4923833 0.4851830 0.4981618 0.4334668 0.4000411 0.4169456
## Cluster 2 0.3234545 0.2727771 0.2745073 0.2589971 0.2254545 0.2118270 0.2255894
## Cluster 3 0.4061660 0.4097986 0.4061404 0.4421461 0.4556454 0.4360738 0.4351277
## Cluster 4 0.4976715 0.4428087 0.3818448 0.4008412 0.3343899 0.3526787 0.3561733
## Cluster 5 0.3350991 0.3224483 0.3015991 0.3358922 0.3177629 0.2914569 0.3098879
                 14857
                           14858
                                     14859
                                               14860
                                                          14861
                                                                    14862
## Cluster 1 0.3949708 0.4311088 0.4632520 0.4360676 0.4256844 0.4384257 0.4483050
## Cluster 2 0.2486481 0.2442727 0.2801554 0.2528270 0.2449003 0.2512639 0.2469765
## Cluster 3 0.4595248 0.4860553 0.5114383 0.4968170 0.4704794 0.4914809 0.5311135
## Cluster 4 0.3545271 0.3740361 0.4054296 0.3419783 0.3377581 0.3775776 0.3751516
## Cluster 5 0.2842629 0.3331164 0.3456724 0.3239138 0.3328405 0.3305388 0.3342716
##
                 14864
                           14865
                                     14866
                                               14867
                                                         14868
                                                                    14869
                                                                              14870
## Cluster 1 0.4877003 0.5534443 0.6158475 0.8138753 0.9016313 0.8213462 0.7495305
## Cluster 2 0.2444516 0.2913871 0.3366188 0.3991144 0.4852170 0.5662141 0.6259824
## Cluster 3 0.5849957 0.6189333 0.6815745 0.7223206 0.7382000 0.6617234 0.6432128
## Cluster 4 0.4412924 0.4881552 0.5911011 0.6670000 0.6716787 0.5669061 0.5637220
## Cluster 5 0.3390905 0.3335733 0.3433534 0.4425000 0.4558017 0.5175560 0.5231509
                                     14873
                                               14874
                 14871
                           14872
                                                         14875
                                                                    14876
## Cluster 1 0.7006936 0.7555769 0.7900729 0.7418196 0.7356432 0.7418541 0.7025637
## Cluster 2 0.6896657 0.7632287 0.7341906 0.7654663 0.8473372 0.8122991 0.8079912
## Cluster 3 0.6515589 0.6932142 0.6979007 0.6866128 0.7435433 0.7244085 0.7451220
## Cluster 4 0.5349242 0.5149278 0.5208339 0.5653899 0.6148628 0.5829025 0.5592310
## Cluster 5 0.5440862 0.5595086 0.5571767 0.5640259 0.6063405 0.6437241 0.7081207
                 14878
                           14879
                                     14880
                                               14881
                                                         14882
                                                                    14883
                                                                              14884
## Cluster 1 0.6189005 0.4999642 0.4118767 0.3028024 0.2422042 0.1942387 0.1778607
## Cluster 2 0.6950968 0.5947331 0.4562786 0.3530205 0.2651114 0.2050000 0.1799560
## Cluster 3 0.7339518 0.6724553 0.5653957 0.4503801 0.3640950 0.2942993 0.2501929
## Cluster 4 0.5108556 0.4408231 0.3641913 0.2787184 0.2594946 0.2261661 0.2255018
## Cluster 5 0.7222414 0.7497586 0.6766724 0.5598707 0.4885948 0.4725474 0.3576379
                           14886
                                     14887
                                               14888
                                                          14889
##
                 14885
                                                                    14890
                                                                              14891
## Cluster 1 0.1662268 0.1609668 0.1575676 0.1607865 0.1594629 0.1603594 0.1661260
## Cluster 2 0.1654487 0.1514282 0.1492317 0.1492405 0.1448065 0.1629824 0.1648651
## Cluster 3 0.2270184 0.2148482 0.1976326 0.1992000 0.1956851 0.1996468 0.2037631
## Cluster 4 0.2117292 0.2157834 0.2185812 0.2212491 0.2179350 0.2369242 0.2354657
## Cluster 5 0.3052371 0.2817888 0.2426078 0.2304828 0.2406121 0.2212888 0.2218578
##
                 14892
                           14893
                                     14894
                                               14895
                                                         14896
                                                                    14897
                                                                              14898
```

```
## Cluster 1 0.1728236 0.1885172 0.2488103 0.3889350 0.5017414 0.5560756 0.5383369
## Cluster 2 0.1924868 0.2410235 0.3263607 0.4660059 0.4475660 0.4230205 0.3519120
## Cluster 3 0.2116326 0.2297574 0.2774099 0.3204851 0.4005319 0.4484298 0.4656908
## Cluster 4 0.3122671 0.4017040 0.5898303 0.7877978 0.8317004 0.6996318 0.5449422
## Cluster 5 0.2205647 0.2248276 0.2726078 0.3344871 0.4141422 0.4735474 0.4076422
                 14899
                           14900
                                               14902
                                                         14903
                                                                    14904
##
                                     14901
## Cluster 1 0.5381446 0.5059708 0.4473448 0.4349549 0.4145995 0.3962122 0.4328475
## Cluster 2 0.2693871 0.2728768 0.2352258 0.2213138 0.2014751 0.2158944 0.2445953
## Cluster 3 0.4380156 0.4222440 0.4174695 0.4308440 0.4547660 0.4506355 0.4656851
## Cluster 4 0.4609819 0.4034801 0.3695776 0.3303935 0.3515235 0.3788845 0.3522635
  Cluster 5 0.3559784 0.3005948 0.3242026 0.2806250 0.2831078 0.2710345 0.2902672
                           14907
                                     14908
                 14906
                                               14909
                                                         14910
                                                                    14911
                                                                              14912
## Cluster 1 0.4328992 0.4402480 0.3909032 0.3921141 0.3688541 0.3963966 0.4230279
## Cluster 2 0.2294018 0.2418240 0.2331935 0.2097625 0.2320909 0.2460264 0.2725367
## Cluster 3 0.4731645 0.4432582 0.4646922 0.4751447 0.4905404 0.5008326 0.5344709
## Cluster 4 0.3474657 0.3413357 0.3476498 0.3250397 0.3237004 0.4193394 0.4631625
## Cluster 5 0.3142500 0.3084353 0.3090819 0.2874741 0.3278362 0.3258793 0.3735043
##
                 14913
                           14914
                                     14915
                                               14916
                                                         14917
                                                                    14918
                                                                              14919
## Cluster 1 0.4647851 0.5769098 0.7030371 0.8047958 0.7908156 0.6967679 0.6506207
## Cluster 2 0.2757419 0.3150264 0.3661848 0.4670205 0.5574633 0.6231056 0.7136979
## Cluster 3 0.5703418 0.6278128 0.6745248 0.6632539 0.6693574 0.6097759 0.6090298
## Cluster 4 0.5056715 0.5739350 0.6210866 0.5814188 0.6025993 0.5240000 0.4938989
## Cluster 5 0.3589310 0.3271207 0.3849052 0.4411422 0.4519009 0.4389957 0.4867845
                 14920
                           14921
                                     14922
                                               14923
                                                         14924
                                                                    14925
## Cluster 1 0.6746048 0.6329125 0.6380491 0.6642878 0.7419045 0.7347493 0.6305782
## Cluster 2 0.6902258 0.6869150 0.6838270 0.7395455 0.8277889 0.7836804 0.7490645
## Cluster 3 0.5825986 0.6209801 0.6296411 0.6809035 0.7288057 0.7580000 0.7286936
## Cluster 4 0.4550361 0.4740722 0.5354007 0.5737365 0.5661697 0.5508159 0.4872960
## Cluster 5 0.4640862 0.4411509 0.4808491 0.5540431 0.5886724 0.6826810 0.6719655
##
                 14927
                           14928
                                     14929
                                               14930
                                                         14931
                                                                    14932
                                                                              14933
## Cluster 1 0.5096631 0.3949615 0.2894005 0.2354138 0.2066114 0.1786034 0.1666034
## Cluster 2 0.6451965 0.4765484 0.3580880 0.2604282 0.2311760 0.1849355 0.1757947
## Cluster 3 0.6880766 0.5888496 0.4643617 0.3713433 0.3114582 0.2521220 0.2374411
## Cluster 4 0.4588051 0.3750325 0.3141155 0.2521769 0.2274296 0.2280036 0.2102599
## Cluster 5 0.7129784 0.6502198 0.5750388 0.4555129 0.3961595 0.3488707 0.2909741
                           14935
                                                         14938
                 14934
                                     14936
                                               14937
                                                                    14939
## Cluster 1 0.1635769 0.1583753 0.1621724 0.1601432 0.1700875 0.1732732 0.1817905
## Cluster 2 0.1662346 0.1525161 0.1567302 0.1620323 0.1636305 0.1652434 0.2027097
## Cluster 3 0.2167730 0.2061532 0.2015603 0.1998113 0.1882298 0.2029191 0.2069291
## Cluster 4 0.2063971 0.2222130 0.2221227 0.2104513 0.2359314 0.2557545 0.3702347
## Cluster 5 0.2631983 0.2409353 0.2249052 0.2289871 0.2072759 0.2086897 0.2070690
                 14941
                           14942
                                     14943
                                               14944
                                                         14945
                                                                    14946
                                                                              14947
## Cluster 1 0.1897202 0.2454390 0.4048568 0.5455769 0.5666340 0.5245809 0.5031963
## Cluster 2 0.2474282 0.3697683 0.4740323 0.4937859 0.4600909 0.3816246 0.2813842
## Cluster 3 0.2241617 0.2691305 0.3226482 0.3689433 0.4398638 0.4589546 0.4590922
## Cluster 4 0.5141949 0.5705162 0.7114188 0.8335090 0.5864404 0.5077004 0.4350722
## Cluster 5 0.2111897 0.2260776 0.3185517 0.3902112 0.3517069 0.3732716 0.3559741
##
                 14948
                           14949
                                     14950
                                               14951
                                                          14952
                                                                    14953
                                                                              14954
## Cluster 1 0.4929125 0.4716313 0.4409708 0.4246048 0.4310663 0.4112016 0.4418408
## Cluster 2 0.2757918 0.2534956 0.2669003 0.2555630 0.2466921 0.2377889 0.2572522
## Cluster 3 0.4514028 0.4916596 0.4504255 0.5120511 0.4973631 0.4939872 0.4824780
## Cluster 4 0.4305307 0.4295596 0.3997401 0.3752960 0.3680505 0.3588917 0.3971227
## Cluster 5 0.3117672 0.3243276 0.3294957 0.2867845 0.3028190 0.2848190 0.3058793
##
                 14955
                           14956
                                     14957
                                               14958
                                                         14959
                                                                    14960
                                                                              14961
```

```
## Cluster 1 0.4225027 0.4022255 0.3809907 0.3997851 0.4124363 0.4732891 0.5105663
## Cluster 2 0.3155777 0.3179795 0.2619912 0.3142463 0.3086716 0.2988416 0.2767331
## Cluster 3 0.5006894 0.4824113 0.4760326 0.4865376 0.4966794 0.5765376 0.6248738
## Cluster 4 0.3468953 0.4236643 0.3719242 0.3537978 0.3986823 0.4541769 0.5459856
## Cluster 5 0.2979957 0.2818362 0.3075345 0.3005517 0.3117371 0.3032629 0.3480216
                 14962
                           14963
                                               14965
                                                          14966
##
                                     14964
                                                                    14967
                                                                              14968
## Cluster 1 0.5117653 0.6485464 0.6992653 0.7396923 0.6557785 0.6568541 0.6429430
## Cluster 2 0.3253226 0.3837830 0.4218182 0.5589883 0.6034780 0.5682962 0.6264868
## Cluster 3 0.6398426 0.6207773 0.6485163 0.6130340 0.5967064 0.6252355 0.6049333
## Cluster 4 0.5802130 0.5899278 0.5640036 0.5905487 0.5766859 0.5633827 0.5096968
  Cluster 5 0.3412586 0.3944052 0.4810259 0.4500216 0.5237414 0.4744353 0.4615043
                           14970
                 14969
                                     14971
                                               14972
                                                          14973
                                                                    14974
                                                                              14975
## Cluster 1 0.6271724 0.6348263 0.6326220 0.6993488 0.6873448 0.6322042 0.5538846
## Cluster 2 0.6326246 0.6040381 0.5855367 0.6088563 0.6881496 0.6547419 0.6531642
## Cluster 3 0.6134482 0.6040610 0.6583035 0.7021617 0.7041518 0.6884610 0.6504057
## Cluster 4 0.5088231 0.4570361 0.4864260 0.5693538 0.5092996 0.4920578 0.5097076
## Cluster 5 0.4746552 0.4721552 0.4920905 0.5724957 0.6447328 0.6546422 0.6791034
##
                 14976
                           14977
                                     14978
                                               14979
                                                          14980
                                                                    14981
                                                                              14982
## Cluster 1 0.4776141 0.3729549 0.2898342 0.2398488 0.2079058 0.1911565 0.1881897
## Cluster 2 0.5411613 0.4102493 0.3081935 0.2563167 0.2316862 0.1964633 0.1857771
## Cluster 3 0.5682950 0.4926908 0.4357206 0.3519319 0.3073007 0.2874227 0.2428950
## Cluster 4 0.3851011 0.3283827 0.2722310 0.2553899 0.2325848 0.2316318 0.2048592
## Cluster 5 0.6524267 0.6097845 0.5115819 0.4301509 0.3917672 0.3329310 0.2720603
                 14983
                           14984
                                     14985
                                               14986
                                                          14987
                                                                    14988
## Cluster 1 0.1769005 0.1713276 0.1654973 0.1646141 0.1650199 0.1780186 0.1817599
## Cluster 2 0.1725718 0.1577478 0.1635279 0.1621525 0.1736188 0.1868240 0.2219091
## Cluster 3 0.2202809 0.2146057 0.2020794 0.1948270 0.1967390 0.2031986 0.2200624
## Cluster 4 0.2226318 0.2082671 0.2095596 0.2186606 0.2210217 0.2761805 0.3626354
## Cluster 5 0.2532112 0.2338233 0.2356724 0.2305647 0.2299828 0.2140086 0.2196164
##
                 14990
                           14991
                                     14992
                                               14993
                                                          14994
                                                                    14995
                                                                              14996
## Cluster 1 0.2117029 0.2481313 0.3345080 0.4515531 0.5524496 0.6254218 0.7181724
## Cluster 2 0.2198182 0.3039707 0.2909912 0.3563988 0.4094751 0.4567185 0.4105601
## Cluster 3 0.2208667 0.2506511 0.2629674 0.3278766 0.4500638 0.4923560 0.5320369
## Cluster 4 0.4372166 0.5045560 0.5549783 0.6759314 0.6440253 0.6465523 0.5491949
## Cluster 5 0.2505517 0.2774224 0.2728448 0.3620086 0.3815302 0.4363793 0.4043707
                           14998
                                     14999
                                               15000
                                                          15001
                 14997
                                                                    15002
                                                                              15003
## Cluster 1 0.7098037 0.6584960 0.6747003 0.6185106 0.5575531 0.5747042 0.5663103
## Cluster 2 0.4577097 0.4834516 0.4707683 0.4705015 0.4028504 0.4392845 0.4229736
## Cluster 3 0.5377348 0.5847617 0.6120099 0.6213589 0.6254142 0.6347801 0.6153191
## Cluster 4 0.5664260 0.5491480 0.5196570 0.5320217 0.4467148 0.4844657 0.4411733
## Cluster 5 0.4185776 0.3916250 0.4169871 0.4634612 0.4683534 0.4513017 0.4312759
                 15004
                           15005
                                     15006
                                               15007
                                                          15008
                                                                    15009
                                                                              15010
## Cluster 1 0.5536499 0.5068581 0.4596353 0.4380411 0.4477122 0.4646870 0.5341233
## Cluster 2 0.3862082 0.3747273 0.3531584 0.3540616 0.3918094 0.4217067 0.4194194
## Cluster 3 0.5911759 0.5514241 0.5551617 0.5588738 0.5413730 0.5682851 0.6103376
## Cluster 4 0.4345090 0.3845884 0.4670722 0.4949783 0.5254946 0.4945993 0.5453718
## Cluster 5 0.4130517 0.3832586 0.3984440 0.3707069 0.4001379 0.4077112 0.4043793
##
                 15011
                           15012
                                     15013
                                               15014
                                                          15015
                                                                    15016
                                                                              15017
## Cluster 1 0.6387241 0.7285199 0.7358395 0.7033170 0.7224019 0.6162931 0.5682971
## Cluster 2 0.4742933 0.5044487 0.5628710 0.5838680 0.5977390 0.5431202 0.5732786
## Cluster 3 0.5986312 0.6433177 0.6606213 0.6477589 0.6399433 0.6109617 0.6451035
## Cluster 4 0.6111805 0.5585090 0.5647329 0.5520433 0.5148881 0.4866534 0.4745451
## Cluster 5 0.4253966 0.4030905 0.4304655 0.5232759 0.5254828 0.5437457 0.4546681
##
                 15018
                           15019
                                     15020
                                               15021
                                                          15022
                                                                    15023
                                                                              15168
```

```
## Cluster 1 0.5628329 0.5418806 0.5870650 0.6251286 0.5743528 0.5160610 0.3727679
## Cluster 2 0.6048416 0.5621554 0.5668446 0.6207566 0.5775748 0.5409326 0.4191525
## Cluster 3 0.6130468 0.6267447 0.6235447 0.6453844 0.6212369 0.5952652 0.5939333
## Cluster 4 0.4817401 0.4528375 0.4789819 0.4565957 0.4476679 0.4557437 0.3535921
## Cluster 5 0.4428879 0.4409698 0.5356121 0.6400043 0.6177672 0.6474828 0.6604224
                 15169
                                               15172
                                                         15173
##
                           15170
                                     15171
                                                                    15174
## Cluster 1 0.2895942 0.2435690 0.2007387 0.1743024 0.1636313 0.1654271 0.1577321
## Cluster 2 0.3265894 0.2382082 0.1934897 0.1898974 0.1477390 0.1470264 0.1476540
## Cluster 3 0.4681688 0.3716085 0.2941248 0.2593504 0.2304596 0.2176681 0.2064837
## Cluster 4 0.2975343 0.2622671 0.2203538 0.2228917 0.2314910 0.2257798 0.2382347
  Cluster 5 0.5773017 0.4937457 0.3927845 0.3162241 0.2950474 0.2302716 0.2217716
                                     15178
                 15176
                           15177
                                               15179
                                                         15180
                                                                    15181
                                                                              15182
## Cluster 1 0.1520822 0.1560756 0.1668475 0.1624032 0.1696711 0.2019496 0.2429456
## Cluster 2 0.1429208 0.1429091 0.1480323 0.1560411 0.2016950 0.2588358 0.3144545
## Cluster 3 0.2028142 0.1960326 0.1963716 0.1994582 0.2131929 0.2348582 0.2701915
## Cluster 4 0.2301661 0.2138087 0.2194621 0.2184260 0.3399061 0.4388448 0.6380072
## Cluster 5 0.2149483 0.2154957 0.2089698 0.2329310 0.2005345 0.2203405 0.2402759
##
                 15183
                           15184
                                     15185
                                               15186
                                                         15187
                                                                    15188
                                                                              15189
## Cluster 1 0.3654748 0.5246950 0.5478435 0.5001830 0.4709377 0.4750796 0.4367851
## Cluster 2 0.4255777 0.4385073 0.4839120 0.3372141 0.2760029 0.2600792 0.2458387
## Cluster 3 0.3337447 0.3610426 0.4428638 0.4501830 0.4037801 0.4366596 0.4504312
## Cluster 4 0.7660614 0.7709928 0.6894621 0.4817256 0.4295921 0.4227509 0.3749567
## Cluster 5 0.2936164 0.3656466 0.3768664 0.3791121 0.3315043 0.3426509 0.2982888
                 15190
                           15191
                                     15192
                                               15193
                                                         15194
                                                                    15195
## Cluster 1 0.4117414 0.4302255 0.4188475 0.4068568 0.3984536 0.4215093 0.3892268
## Cluster 2 0.2327713 0.2801290 0.2318211 0.2355777 0.2204633 0.2711202 0.2479619
## Cluster 3 0.4207376 0.4265489 0.4388794 0.4812865 0.4784979 0.5485787 0.4992340
## Cluster 4 0.3406173 0.3119422 0.3243646 0.3242166 0.3494946 0.3585126 0.3649170
## Cluster 5 0.2843707 0.2778362 0.2822716 0.2487586 0.3228319 0.3430302 0.3141681
##
                 15197
                           15198
                                     15199
                                               15200
                                                         15201
                                                                    15202
                                                                              15203
## Cluster 1 0.3775517 0.3975902 0.4406088 0.4467533 0.4992188 0.5810318 0.7280968
## Cluster 2 0.2411965 0.2579355 0.2344018 0.2365132 0.2916129 0.3201349 0.3677067
## Cluster 3 0.4667050 0.4926326 0.5239461 0.5302241 0.6152156 0.6479234 0.7023702
## Cluster 4 0.3696968 0.3279242 0.3911011 0.4237040 0.5460181 0.5977365 0.6498448
## Cluster 5 0.3222198 0.2777112 0.2952284 0.2912414 0.3227241 0.3136810 0.3687112
                                                         15208
                                     15206
                                               15207
                 15204
                           15205
                                                                    15209
## Cluster 1 0.8000729 0.7840464 0.6955186 0.6816300 0.6514708 0.6335133 0.6071724
## Cluster 2 0.4359384 0.5805630 0.6078622 0.6662874 0.6801877 0.6720440 0.6665953
## Cluster 3 0.6849291 0.6609972 0.6114213 0.6472922 0.5963844 0.6010326 0.5927702
## Cluster 4 0.6834116 0.6545776 0.5969783 0.5314801 0.5666643 0.5017401 0.4678700
## Cluster 5 0.4038405 0.4428922 0.4462414 0.4388017 0.4492328 0.4411121 0.4793147
                 15211
                           15212
                                     15213
                                               15214
                                                         15215
                                                                    15216
                                                                              15217
## Cluster 1 0.6220106 0.6373660 0.6285955 0.5898793 0.5196485 0.4042798 0.2992759
## Cluster 2 0.7292082 0.7803431 0.7536833 0.6881437 0.5884751 0.4507361 0.3101848
## Cluster 3 0.6831730 0.7052922 0.7140057 0.6737135 0.6666085 0.5506567 0.4477603
## Cluster 4 0.4706751 0.4707220 0.5066137 0.4668773 0.4033069 0.3497726 0.3174224
## Cluster 5 0.4912931 0.5540560 0.6490000 0.6647629 0.7111379 0.6910733 0.6093621
##
                 15218
                           15219
                                     15220
                                               15221
                                                          15222
                                                                    15223
                                                                              15224
## Cluster 1 0.2361340 0.1999058 0.1818899 0.1662175 0.1561247 0.1547095 0.1535928
## Cluster 2 0.2514780 0.1779120 0.1676510 0.1531378 0.1507449 0.1501818 0.1389971
## Cluster 3 0.3600752 0.3075191 0.2922879 0.2391305 0.2234199 0.2019121 0.2027319
## Cluster 4 0.2605596 0.2297653 0.2388881 0.2272996 0.2148953 0.2228448 0.2290939
## Cluster 5 0.5006422 0.4100129 0.3432155 0.3022155 0.2627759 0.2382500 0.2354009
##
                 15225
                           15226
                                     15227
                                               15228
                                                         15229
                                                                    15230
                                                                              15231
```

```
## Cluster 1 0.1587666 0.1620106 0.1711830 0.1774244 0.1904761 0.2330637 0.3697626
## Cluster 2 0.1434370 0.1452434 0.1516481 0.2077185 0.2415982 0.3120059 0.4886569
## Cluster 3 0.1944638 0.1979801 0.1992184 0.2149957 0.2637163 0.2666454 0.2842837
## Cluster 4 0.2308014 0.2178520 0.2310903 0.3519134 0.4608809 0.6327220 0.7317509
## Cluster 5 0.2306336 0.2142155 0.2280948 0.2156336 0.2212155 0.2578621 0.3034957
                                                          15236
##
                 15232
                           15233
                                     15234
                                               15235
                                                                    15237
                                                                              15238
## Cluster 1 0.5204854 0.5258979 0.5301353 0.4979748 0.4896751 0.4499244 0.4199828
## Cluster 2 0.4631672 0.4249296 0.3357273 0.2755044 0.2425249 0.2250411 0.2175220
## Cluster 3 0.3746950 0.4347461 0.4518567 0.4313376 0.4419915 0.4066624 0.4585177
## Cluster 4 0.8260144 0.7096751 0.4932022 0.4490397 0.4092888 0.4028375 0.3488664
  Cluster 5 0.3637198 0.4726250 0.3783060 0.3245086 0.3179052 0.2703578 0.2774526
                 15239
                           15240
                                     15241
                                               15242
                                                          15243
                                                                    15244
                                                                              15245
## Cluster 1 0.4139788 0.4075119 0.4092520 0.4448064 0.4428581 0.4215889 0.4008767
## Cluster 2 0.2012434 0.1960674 0.2010381 0.2229707 0.2340205 0.2176393 0.2003079
## Cluster 3 0.4504170 0.4938284 0.4896582 0.5006369 0.5515021 0.5016922 0.5072894
## Cluster 4 0.3324152 0.3668773 0.3638989 0.3451191 0.3928700 0.3806715 0.3736137
## Cluster 5 0.2911853 0.2816466 0.2845043 0.3264828 0.3165690 0.3401724 0.3625043
##
                 15246
                           15247
                                     15248
                                               15249
                                                          15250
                                                                    15251
                                                                              15252
## Cluster 1 0.4107414 0.4348594 0.4565000 0.5117334 0.6258833 0.7311724 0.8461658
## Cluster 2 0.2510997 0.2397918 0.2446334 0.2987977 0.3200880 0.3797097 0.4338006
## Cluster 3 0.5077759 0.5277716 0.5797858 0.6225688 0.6564241 0.6674128 0.6952993
## Cluster 4 0.3544043 0.4352599 0.4827148 0.5595415 0.6472058 0.6554007 0.6939711
## Cluster 5 0.3375819 0.3348362 0.3362026 0.3295603 0.3597500 0.4373664 0.4953405
                 15253
                           15254
                                     15255
                                               15256
                                                          15257
                                                                    15258
## Cluster 1 0.8008966 0.6820491 0.7120279 0.6675252 0.6809629 0.6066658 0.6326777
## Cluster 2 0.5795191 0.6277889 0.5950616 0.6690645 0.7048475 0.7199326 0.7562874
## Cluster 3 0.6652681 0.6484567 0.6784539 0.6365092 0.6801660 0.6643560 0.6692638
## Cluster 4 0.6292744 0.5677004 0.5235162 0.5024260 0.4699422 0.5056029 0.5349783
## Cluster 5 0.4500948 0.4946293 0.4585043 0.4607716 0.4767414 0.5098966 0.5656293
##
                 15260
                           15261
                                     15262
                                               15263
                                                          15264
                                                                    15265
                                                                              15266
## Cluster 1 0.6124854 0.6549377 0.5850186 0.5008660 0.4134416 0.3016976 0.2362507
## Cluster 2 0.7635777 0.7297009 0.7007419 0.5997155 0.4893988 0.3584106 0.2607625
## Cluster 3 0.6885560 0.7313064 0.6575333 0.6283674 0.5366794 0.4377092 0.3496638
## Cluster 4 0.5038845 0.5007870 0.4641191 0.3983141 0.3523394 0.2849242 0.2518159
  Cluster 5 0.5602931 0.6793578 0.6567241 0.6928319 0.6645733 0.5496983 0.4572672
                 15267
                           15268
                                     15269
                                               15270
                                                          15271
                                                                    15272
## Cluster 1 0.2053727 0.1728846 0.1563859 0.1555928 0.1518475 0.1473660 0.1495517
## Cluster 2 0.2063226 0.1827918 0.1642757 0.1535572 0.1423636 0.1399443 0.1418182
## Cluster 3 0.3068908 0.2638766 0.2277787 0.2162340 0.2046255 0.1985050 0.1977972
## Cluster 4 0.2248917 0.2108736 0.2061191 0.2069783 0.2078700 0.2033791 0.2007401
## Cluster 5 0.3816164 0.3252026 0.3002284 0.2633879 0.2355000 0.2223707 0.2374828
                 15274
                           15275
                                     15276
                                               15277
                                                          15278
                                                                    15279
                                                                              15280
## Cluster 1 0.1540239 0.1577533 0.1743899 0.2056034 0.2227215 0.3606194 0.5074191
## Cluster 2 0.1531789 0.1587859 0.1959326 0.2390235 0.3143284 0.3697302 0.3973695
## Cluster 3 0.1965887 0.1957816 0.2178099 0.2577163 0.2845957 0.3093078 0.3859716
## Cluster 4 0.2192888 0.2306282 0.3495235 0.4518412 0.6031011 0.7184801 0.8131841
## Cluster 5 0.2158621 0.2269181 0.2157500 0.2621983 0.2718362 0.3340948 0.3729095
                           15282
##
                 15281
                                     15283
                                               15284
                                                          15285
                                                                    15286
                                                                              15287
## Cluster 1 0.5338395 0.5075955 0.4931817 0.4781300 0.4212745 0.4489881 0.4410159
## Cluster 2 0.3888504 0.3247918 0.3082815 0.3366569 0.2546774 0.2652610 0.2640264
## Cluster 3 0.3926950 0.4185121 0.4705475 0.4613560 0.4488113 0.4263418 0.4508113
## Cluster 4 0.6410794 0.5143249 0.4215848 0.4467401 0.3867509 0.3786137 0.3978231
## Cluster 5 0.3890172 0.4002198 0.3995259 0.3640603 0.3532672 0.3204181 0.3258879
##
                 15288
                           15289
                                     15290
                                               15291
                                                          15292
                                                                    15293
                                                                              15294
```

```
## Cluster 1 0.4188926 0.4092162 0.4126790 0.4202706 0.3770690 0.3713767 0.3895862
## Cluster 2 0.2570880 0.2333196 0.2156598 0.2862229 0.2488152 0.2514692 0.2806628
## Cluster 3 0.4794071 0.4892227 0.5017943 0.5081135 0.5029220 0.5058170 0.4773617
## Cluster 4 0.3784982 0.3798881 0.3791913 0.3877617 0.3831119 0.3827942 0.3721083
## Cluster 5 0.3495129 0.3253233 0.3335733 0.3276983 0.2914397 0.3025345 0.2859914
                 15295
                           15296
                                     15297
                                               15298
                                                         15299
                                                                    15300
##
                                                                              15301
## Cluster 1 0.4179841 0.4416459 0.4682546 0.5507599 0.7201658 0.7890119 0.7787268
## Cluster 2 0.2582581 0.2951554 0.3429179 0.3226833 0.3475279 0.4127742 0.5433431
## Cluster 3 0.5157915 0.5503035 0.5506695 0.6801773 0.6785674 0.6643248 0.6994652
## Cluster 4 0.4090181 0.4669603 0.5796101 0.5851733 0.5538303 0.6935848 0.6063502
  Cluster 5 0.2872069 0.3347328 0.3784741 0.3248966 0.3582888 0.4397888 0.4626078
                           15303
                                     15304
                 15302
                                               15305
                                                         15306
                                                                    15307
                                                                              15308
## Cluster 1 0.7142560 0.7476127 0.6554005 0.6250517 0.6284934 0.6662732 0.6644005
## Cluster 2 0.6075425 0.5805191 0.6419062 0.6095865 0.5852258 0.6236452 0.7103109
## Cluster 3 0.6590865 0.6131163 0.5870993 0.6185319 0.6393177 0.6869603 0.7071645
## Cluster 4 0.5724188 0.5523827 0.5382022 0.4700000 0.5061480 0.4964116 0.4704585
## Cluster 5 0.4555000 0.4471724 0.4158060 0.4336595 0.5227759 0.5381552 0.5411681
##
                 15309
                           15310
                                     15311
                                               15312
                                                         15313
                                                                    15314
                                                                              15315
## Cluster 1 0.6450663 0.5900027 0.5232613 0.4645809 0.3678621 0.2846777 0.2431419
## Cluster 2 0.6846452 0.6863607 0.6003460 0.5095220 0.3935894 0.2942405 0.2397302
## Cluster 3 0.7332454 0.7095177 0.7078582 0.6316355 0.5347433 0.4292000 0.3564227
## Cluster 4 0.4564838 0.4573646 0.4568484 0.3740253 0.3163177 0.2911227 0.2840397
## Cluster 5 0.6335345 0.6292543 0.6268534 0.6181595 0.5414871 0.4783319 0.4327500
                 15316
                           15317
                                     15318
                                               15319
                                                          15320
                                                                    15321
## Cluster 1 0.2001538 0.1841897 0.1778342 0.1677082 0.1584284 0.1548342 0.1521790
## Cluster 2 0.2141232 0.1852199 0.1648651 0.1615836 0.1519413 0.1529501 0.1542141
## Cluster 3 0.3006794 0.2799730 0.2486383 0.2402454 0.2199475 0.2143589 0.2052156
## Cluster 4 0.2411805 0.2413141 0.2178051 0.2108917 0.2017690 0.2153935 0.2205523
## Cluster 5 0.3892845 0.3537500 0.2748319 0.2497069 0.2398319 0.2427069 0.2206336
##
                 15323
                           15324
                                     15325
                                               15326
                                                         15327
                                                                    15328
                                                                              15329
## Cluster 1 0.1577653 0.1678568 0.1754934 0.1883170 0.2306883 0.3054151 0.3518660
## Cluster 2 0.1551730 0.1667830 0.1976158 0.2095894 0.2401085 0.2444282 0.2790176
## Cluster 3 0.2057064 0.2112071 0.2205560 0.2334255 0.2492539 0.2725972 0.3111674
## Cluster 4 0.2252238 0.2773430 0.3512780 0.3989783 0.5412816 0.5611516 0.5785668
## Cluster 5 0.2278966 0.2261767 0.2272500 0.2243017 0.2602155 0.2634957 0.3127802
                                               15333
                                                         15334
                 15330
                           15331
                                     15332
                                                                    15335
                                                                              15336
## Cluster 1 0.4242958 0.5463846 0.5763992 0.6383249 0.6674576 0.6625212 0.6276127
## Cluster 2 0.3185455 0.3664751 0.4800850 0.4718240 0.5308915 0.4371525 0.3599179
## Cluster 3 0.3733262 0.4246965 0.4684596 0.5409688 0.5435191 0.6016213 0.5950440
## Cluster 4 0.6208556 0.5495560 0.5429495 0.5781119 0.5030469 0.5211697 0.6123827
## Cluster 5 0.3382500 0.3349871 0.3466250 0.4168362 0.4442414 0.4486250 0.4128362
                 15337
                           15338
                                     15339
                                               15340
                                                         15341
                                                                    15342
                                                                              15343
## Cluster 1 0.6471220 0.6655464 0.6522347 0.6285782 0.5825451 0.5693528 0.5757666
## Cluster 2 0.4569355 0.4769003 0.5277273 0.4349413 0.4142141 0.4469883 0.4415484
## Cluster 3 0.6241220 0.6244780 0.6526397 0.6692340 0.6507986 0.6470156 0.6541504
## Cluster 4 0.4823863 0.4452455 0.5053141 0.5072274 0.4109675 0.5250975 0.4886065
## Cluster 5 0.4153319 0.4327198 0.4389483 0.4457802 0.4497759 0.3939871 0.4233448
##
                 15344
                           15345
                                     15346
                                               15347
                                                          15348
                                                                    15349
                                                                              15350
## Cluster 1 0.5456790 0.5631777 0.6463820 0.7556897 0.8644257 0.8147255 0.7929244
## Cluster 2 0.4138123 0.4311026 0.4240029 0.4485513 0.5641466 0.6983490 0.6958152
## Cluster 3 0.6317801 0.6508794 0.6605674 0.6960709 0.7111362 0.7183901 0.7180071
## Cluster 4 0.5305126 0.5868773 0.6236643 0.6264982 0.6544801 0.6403357 0.6193971
## Cluster 5 0.4496853 0.4490905 0.4552414 0.4923578 0.5235043 0.5382672 0.5848922
##
                 15351
                           15352
                                     15353
                                               15354
                                                         15355
                                                                    15356
                                                                              15357
```

```
## Cluster 1 0.7919934 0.7039920 0.6680517 0.6515424 0.6380106 0.5955332 0.5945849
## Cluster 2 0.6598739 0.7179560 0.7298006 0.6383402 0.6586012 0.6530059 0.6459531
## Cluster 3 0.7106539 0.6720000 0.6541362 0.6524496 0.6313461 0.6710454 0.6548355
## Cluster 4 0.5578809 0.5385523 0.5499928 0.4895487 0.4646029 0.4566245 0.4466895
## Cluster 5 0.5614957 0.5349440 0.5008147 0.5952069 0.5816379 0.5177931 0.5724138
                 15358
                           15359
                                     15360
                                                          15362
##
                                               15361
                                                                    15363
                                                                              15364
## Cluster 1 0.5612016 0.5168727 0.4535849 0.3609045 0.3000955 0.2354761 0.2081963
## Cluster 2 0.5987713 0.5669677 0.4639296 0.3670909 0.3268123 0.2641349 0.2484428
## Cluster 3 0.6298638 0.6070383 0.5669348 0.5002525 0.4298922 0.3573858 0.3192652
## Cluster 4 0.4398556 0.4369639 0.3877256 0.3211841 0.3042455 0.2530578 0.2595596
  Cluster 5 0.5799741 0.6562414 0.6556940 0.5449181 0.5025905 0.4206940 0.3784267
                 15365
                           15366
                                     15367
                                               15368
                                                          15369
                                                                    15370
                                                                              15371
## Cluster 1 0.1974045 0.1802586 0.1739735 0.1637719 0.1590027 0.1562215 0.1485305
## Cluster 2 0.2025982 0.1781056 0.1649238 0.1628328 0.1677566 0.1577830 0.1539531
## Cluster 3 0.2916525 0.2510270 0.2371702 0.2253901 0.2140255 0.1971957 0.2051589
## Cluster 4 0.2540000 0.2185560 0.2142491 0.2095235 0.2146137 0.2209206 0.2329025
## Cluster 5 0.3238879 0.3239914 0.2950991 0.2675819 0.2624095 0.2344698 0.2221207
##
                 15372
                           15373
                                     15374
                                               15375
                                                          15376
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                                                                              15378
## Cluster 1 0.1537692 0.1694363 0.1747546 0.2106286 0.2547095 0.3255225 0.3970398
## Cluster 2 0.1654721 0.1764721 0.1819941 0.2113196 0.2091466 0.2521320 0.3252581
## Cluster 3 0.2130270 0.2096014 0.2204582 0.2260837 0.2368723 0.2573872 0.3032383
## Cluster 4 0.2883357 0.3494513 0.3889097 0.4275957 0.4851191 0.5122310 0.4754477
## Cluster 5 0.2071940 0.2049526 0.2020560 0.2283060 0.2375388 0.2680431 0.2976207
                 15379
                           15380
                                     15381
                                               15382
                                                          15383
                                                                    15384
## Cluster 1 0.4969403 0.5924987 0.6359019 0.7292851 0.7039523 0.7682798 0.7576552
## Cluster 2 0.3572170 0.4130557 0.4323930 0.5629032 0.5149267 0.4821056 0.4484135
## Cluster 3 0.3870426 0.4980184 0.5677532 0.6169121 0.6576823 0.7052780 0.7193135
## Cluster 4 0.5431697 0.6020144 0.5730650 0.5833466 0.5920939 0.5689242 0.6022130
## Cluster 5 0.2930560 0.3297328 0.4167112 0.4944052 0.4327931 0.4756724 0.4850302
##
                 15386
                           15387
                                     15388
                                               15389
                                                          15390
                                                                    15391
                                                                              15392
## Cluster 1 0.7664469 0.7545981 0.7204390 0.6439456 0.6162202 0.5698130 0.5851326
## Cluster 2 0.5084780 0.5019824 0.5487126 0.4396217 0.4358416 0.3931026 0.3871056
## Cluster 3 0.7580213 0.7878936 0.7573489 0.7162539 0.6769404 0.6655716 0.6261972
## Cluster 4 0.5493863 0.5991047 0.5727437 0.5557220 0.5021949 0.5915235 0.5669783
  Cluster 5 0.4938793 0.4905776 0.5632500 0.4721940 0.4798405 0.4855129 0.4182414
                                                          15397
                           15394
                                     15395
                 15393
                                               15396
                                                                    15398
                                                                              15399
## Cluster 1 0.6220769 0.6480305 0.7101910 0.7243316 0.7656538 0.6969164 0.6887865
## Cluster 2 0.4178563 0.4422111 0.5024282 0.5184721 0.6523226 0.6467185 0.6526481
## Cluster 3 0.6090355 0.5882652 0.5778993 0.6288426 0.6521872 0.6360723 0.6451759
## Cluster 4 0.5533321 0.5530433 0.5989242 0.6072383 0.5915704 0.5516245 0.5432130
## Cluster 5 0.4570647 0.4298621 0.4508405 0.4597155 0.4689267 0.4827069 0.4775647
                 15400
                           15401
                                     15402
                                               15403
                                                          15404
                                                                    15405
                                                                              15406
## Cluster 1 0.6855623 0.7004019 0.6780451 0.6669894 0.6575597 0.6247825 0.5548488
## Cluster 2 0.6542962 0.7013695 0.7021144 0.7256628 0.7243578 0.6851232 0.6320704
## Cluster 3 0.6286000 0.6808482 0.6715518 0.6815603 0.6765135 0.6898837 0.6814383
## Cluster 4 0.5089134 0.4867726 0.4566931 0.4959278 0.5300903 0.4885343 0.4111155
## Cluster 5 0.4410862 0.4711422 0.4964698 0.5810172 0.5952414 0.6553621 0.6338707
##
                 15407
                           15408
                                     15409
                                               15410
                                                          15411
                                                                    15412
                                                                              15413
## Cluster 1 0.4680464 0.3578634 0.2970637 0.2335544 0.1923462 0.1781485 0.1646074
## Cluster 2 0.5187243 0.4105044 0.3212551 0.2595425 0.2064927 0.1901349 0.1638886
## Cluster 3 0.6354652 0.5227901 0.4222794 0.3607319 0.3042184 0.2686638 0.2316255
## Cluster 4 0.4008592 0.3458303 0.3157653 0.2730614 0.2281480 0.2254729 0.2257978
## Cluster 5 0.6680000 0.6760733 0.6250216 0.4831810 0.4017112 0.3408276 0.3033750
##
                 15414
                           15415
                                     15416
                                               15417
                                                          15418
                                                                    15419
                                                                              15420
```

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## Cluster 1 0.1590398 0.1510265 0.1517838 0.1537122 0.1540424 0.1721658 0.1717042
## Cluster 2 0.1540176 0.1521672 0.1516891 0.1543431 0.1504545 0.1541378 0.1890264
## Cluster 3 0.2283915 0.2128142 0.2057787 0.1977589 0.1946426 0.1980723 0.2140213
## Cluster 4 0.2160325 0.2110144 0.2177220 0.2137690 0.2238123 0.2241552 0.3258592
## Cluster 5 0.2747328 0.2671121 0.2476250 0.2609009 0.2370129 0.2150819 0.2263276
                 15421
                           15422
                                     15423
                                               15424
                                                         15425
                                                                    15426
## Cluster 1 0.1885371 0.2367467 0.3305597 0.4471048 0.5075862 0.4885491 0.4997109
## Cluster 2 0.2429062 0.2846862 0.4292082 0.4235865 0.4097331 0.3284897 0.2879736
## Cluster 3 0.2550383 0.2673333 0.2971064 0.3501972 0.4265858 0.4288142 0.4150823
## Cluster 4 0.4620433 0.5841336 0.7323935 0.8141913 0.6640722 0.5464188 0.4671372
  Cluster 5 0.2125776 0.2312371 0.2934138 0.3765560 0.4404397 0.3794871 0.3490991
                           15429
                                     15430
                 15428
                                               15431
                                                         15432
                                                                    15433
                                                                              15434
## Cluster 1 0.4558090 0.4596724 0.4358236 0.4540690 0.4242918 0.4599125 0.4537626
## Cluster 2 0.2905660 0.3012493 0.2664516 0.2711642 0.2758622 0.2489296 0.2785132
## Cluster 3 0.4226128 0.4333177 0.4892823 0.4427390 0.4969901 0.4926468 0.5227035
## Cluster 4 0.4145307 0.4053646 0.3662202 0.3743899 0.4070181 0.4134946 0.3765054
## Cluster 5 0.3238966 0.3179784 0.3530043 0.3478060 0.3518491 0.3396681 0.3157586
##
                 15435
                           15436
                                     15437
                                               15438
                                                         15439
                                                                    15440
                                                                              15441
## Cluster 1 0.4656260 0.4528077 0.4305862 0.4357454 0.4676538 0.4881141 0.5516446
## Cluster 2 0.2947419 0.2811261 0.2829120 0.2518856 0.2612375 0.2886100 0.3152053
## Cluster 3 0.5446950 0.5139972 0.5198879 0.5250482 0.5598965 0.5810567 0.6265589
## Cluster 4 0.3738917 0.3664332 0.3806643 0.3952274 0.4332816 0.4876859 0.6376245
## Cluster 5 0.3483793 0.3299612 0.3523017 0.3393319 0.3376638 0.3963276 0.3984914
                 15442
                           15443
                                     15444
                                               15445
                                                         15446
                                                                    15447
## Cluster 1 0.6596114 0.7549854 0.9161790 0.8836764 0.8303077 0.7778302 0.7726790
## Cluster 2 0.3324545 0.4041642 0.5190674 0.6508094 0.7417038 0.7616217 0.7517977
## Cluster 3 0.7317801 0.7024950 0.7330979 0.7581475 0.7434085 0.7262865 0.7144993
## Cluster 4 0.7082238 0.7078556 0.7151949 0.6157329 0.6438195 0.6900505 0.6106101
## Cluster 5 0.3935043 0.4287672 0.4636379 0.5255086 0.5301293 0.5676897 0.5177198
                 15449
                           15450
                                     15451
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                                                         15453
                                                                    15454
                                                                              15455
## Cluster 1 0.7605597 0.7254987 0.7061220 0.6765199 0.6228408 0.5574509 0.4758793
## Cluster 2 0.8248416 0.7705103 0.8715455 0.7953460 0.7953460 0.7146188 0.6150674
## Cluster 3 0.6933887 0.7103035 0.7811262 0.7757333 0.7640468 0.6986553 0.6486113
## Cluster 4 0.5391047 0.5596679 0.5697004 0.5167184 0.5244404 0.4512852 0.3914549
## Cluster 5 0.5806078 0.5947888 0.6347414 0.6588879 0.6524224 0.6968405 0.7472759
                           15457
                                     15458
                 15456
                                               15459
                                                         15460
                                                                    15461
                                                                              15462
## Cluster 1 0.3696286 0.2727480 0.2141406 0.1884284 0.1729138 0.1571194 0.1615093
## Cluster 2 0.4349413 0.3167683 0.2392903 0.1883812 0.1831642 0.1614956 0.1554956
## Cluster 3 0.5728326 0.4522085 0.3729106 0.3038894 0.2620270 0.2324879 0.2172369
## Cluster 4 0.3355451 0.2823791 0.2395921 0.2140144 0.2089531 0.2032924 0.1992563
## Cluster 5 0.6933491 0.5814957 0.4975431 0.4398103 0.3725819 0.2990690 0.2640259
                           15464
                                     15465
                                               15466
                                                         15467
                 15463
                                                                    15468
                                                                              15469
## Cluster 1 0.1559178 0.1512984 0.1511101 0.1486711 0.1576247 0.1612878 0.1939602
## Cluster 2 0.1481906 0.1555279 0.1534985 0.1440733 0.1640645 0.1873343 0.2563548
## Cluster 3 0.2053589 0.2020709 0.1975262 0.1971418 0.2040950 0.2156241 0.2490539
## Cluster 4 0.2083502 0.2013430 0.2008375 0.2108412 0.2128628 0.3164079 0.4034765
## Cluster 5 0.2346379 0.2231509 0.2431509 0.2446724 0.2516724 0.2310259 0.2323966
##
                 15470
                           15471
                                     15472
                                               15473
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                                                                    15475
                                                                              15476
## Cluster 1 0.2483806 0.3480729 0.4890517 0.5156048 0.5000942 0.4956247 0.4925928
## Cluster 2 0.3161701 0.4388680 0.3992023 0.4663724 0.3573871 0.2457214 0.2443695
## Cluster 3 0.2635106 0.3142993 0.3725461 0.4228837 0.4296142 0.4431872 0.4221390
## Cluster 4 0.5792671 0.7421661 0.8454910 0.6952780 0.5840758 0.4646390 0.3872563
## Cluster 5 0.2457586 0.3272629 0.3910000 0.3709483 0.3956681 0.3241983 0.3171767
##
                 15477
                           15478
                                     15479
                                               15480
                                                         15481
                                                                    15482
```

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## Cluster 1 0.4658501 0.4586631 0.4485584 0.4071751 0.4000981 0.4484987 0.4705597
## Cluster 2 0.2280264 0.2423314 0.2623607 0.2072434 0.2190176 0.2118622 0.2308270
## Cluster 3 0.4346965 0.4450979 0.4612709 0.4897972 0.4754780 0.5002596 0.5316993
## Cluster 4 0.3593610 0.3574116 0.3493357 0.3712310 0.3548556 0.3491588 0.3980722
## Cluster 5 0.3561853 0.3418147 0.3361853 0.3079526 0.3203750 0.3377371 0.3468664
                 15484
                           15485
                                                         15488
                                                                    15489
                                     15486
                                               15487
## Cluster 1 0.4334377 0.4157759 0.4088899 0.4412175 0.4443369 0.5073753 0.6143966
## Cluster 2 0.2390117 0.2501232 0.2246598 0.2469912 0.2530235 0.2683666 0.2965220
## Cluster 3 0.4694809 0.4409589 0.5128681 0.5728582 0.5645163 0.6334851 0.7269887
## Cluster 4 0.3939025 0.3881516 0.3849061 0.4013718 0.4710939 0.5292744 0.5779061
  Cluster 5 0.3497328 0.3680733 0.3471466 0.3591034 0.3368405 0.3349741 0.3409224
                                     15493
                 15491
                           15492
                                               15494
                                                         15495
                                                                    15496
                                                                              15497
## Cluster 1 0.8090610 0.8716472 0.8715928 0.7177613 0.6904801 0.6551552 0.6437202
## Cluster 2 0.3967478 0.5257566 0.5790616 0.5828123 0.6391437 0.6674809 0.6398622
## Cluster 3 0.7248340 0.7061234 0.6849433 0.6305348 0.6469773 0.6333149 0.6531248
## Cluster 4 0.6247040 0.7227978 0.7306570 0.6351769 0.5656931 0.5835704 0.5742202
## Cluster 5 0.4167328 0.4713750 0.4980948 0.5096336 0.4849569 0.4914828 0.4731293
##
                 15498
                           15499
                                     15500
                                               15501
                                                         15502
                                                                    15503
                                                                              15504
## Cluster 1 0.5733541 0.6403753 0.6502480 0.6636830 0.6003196 0.5538674 0.4254668
## Cluster 2 0.6379619 0.6634399 0.6462082 0.7354663 0.6732522 0.5905396 0.4569267
## Cluster 3 0.6553688 0.6619177 0.6781759 0.7304128 0.7106184 0.6928156 0.5816071
## Cluster 4 0.5128159 0.4918773 0.4894007 0.4874368 0.4955451 0.4716570 0.3804621
## Cluster 5 0.4383448 0.4641638 0.5671509 0.6147672 0.6648836 0.7455776 0.6308664
                 15505
                           15506
                                     15507
                                               15508
                                                          15509
                                                                    15510
## Cluster 1 0.3111273 0.2497706 0.2159854 0.1819483 0.1636671 0.1620676 0.1549987
## Cluster 2 0.3195396 0.2338534 0.2004252 0.1718534 0.1540293 0.1485836 0.1531730
## Cluster 3 0.4988355 0.3817461 0.3140525 0.2651617 0.2490553 0.2259092 0.2123872
## Cluster 4 0.2957690 0.2735126 0.2336318 0.2248159 0.2334079 0.2176679 0.2240000
## Cluster 5 0.5843491 0.5039052 0.4079957 0.3585517 0.3274310 0.2861250 0.2231034
                 15512
                           15513
                                     15514
                                               15515
                                                         15516
                                                                    15517
                                                                              15518
## Cluster 1 0.1584284 0.1596698 0.1510186 0.1660358 0.1790464 0.2082042 0.2473992
## Cluster 2 0.1450587 0.1462991 0.1515572 0.1759355 0.1963548 0.2820587 0.3616921
## Cluster 3 0.2106284 0.2021901 0.2014638 0.2080170 0.2295489 0.2503035 0.2931801
## Cluster 4 0.2125848 0.2261227 0.2181805 0.2396282 0.3598014 0.4894910 0.6108087
## Cluster 5 0.2225862 0.2554138 0.2182069 0.2232328 0.2227241 0.2413276 0.2572888
                                                         15523
                 15519
                           15520
                                     15521
                                               15522
                                                                    15524
## Cluster 1 0.3778395 0.5077931 0.5539987 0.5518674 0.5308607 0.4843143 0.4400159
## Cluster 2 0.4351760 0.4491408 0.3835308 0.3106393 0.2814399 0.2931672 0.2873226
## Cluster 3 0.3205759 0.3862752 0.4309660 0.4236057 0.4255333 0.4643887 0.4433220
## Cluster 4 0.8537292 0.8470469 0.6387148 0.5655921 0.4352924 0.4161408 0.4033971
## Cluster 5 0.3601983 0.3758319 0.4205819 0.3782284 0.3320991 0.3069914 0.3190819
                 15526
                                     15528
                                               15529
                                                         15530
                           15527
                                                                    15531
                                                                              15532
## Cluster 1 0.4418448 0.4325915 0.3887480 0.4252082 0.4234443 0.4593647 0.4077719
## Cluster 2 0.2392170 0.2358563 0.2203167 0.1998768 0.2118886 0.2267009 0.2223050
## Cluster 3 0.4632809 0.4425560 0.4709021 0.4907943 0.4908028 0.5070284 0.4840099
## Cluster 4 0.3976715 0.3998989 0.3675921 0.3482058 0.3495921 0.3969458 0.3793574
## Cluster 5 0.3699353 0.3731595 0.3334612 0.3433750 0.3647241 0.3249871 0.3253060
##
                 15533
                           15534
                                     15535
                                               15536
                                                          15537
                                                                    15538
                                                                              15539
## Cluster 1 0.4062069 0.3942546 0.4181406 0.4448289 0.4944271 0.5999536 0.6885981
## Cluster 2 0.2027067 0.2207830 0.2173607 0.2346510 0.2766188 0.3253695 0.3830704
## Cluster 3 0.4639163 0.4666014 0.5125589 0.5929929 0.6184184 0.6467574 0.6844000
## Cluster 4 0.3912599 0.3477726 0.4182347 0.4372310 0.5067581 0.5402924 0.5919025
## Cluster 5 0.2905345 0.3100000 0.2929224 0.3434914 0.3374310 0.3361336 0.3785776
##
                 15540
                           15541
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                                                         15544
                                                                    15545
```

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## Cluster 1 0.7269894 0.7639881 0.7114257 0.6761844 0.6486499 0.6587639 0.6406790
## Cluster 2 0.4416422 0.5427390 0.5780938 0.6220762 0.6820264 0.6991202 0.6929355
## Cluster 3 0.6590638 0.6569787 0.5969191 0.6134582 0.6266894 0.5866837 0.6371759
## Cluster 4 0.6825451 0.5855884 0.5756751 0.5621733 0.5073899 0.5375090 0.4834838
## Cluster 5 0.4366379 0.4454009 0.4488750 0.4509569 0.4404612 0.4366552 0.4498707
                                                         15551
                 15547
                           15548
                                     15549
                                               15550
                                                                    15552
                                                                              15553
## Cluster 1 0.6628064 0.6232586 0.6507149 0.5967732 0.5086883 0.3958422 0.3166485
## Cluster 2 0.6428798 0.6844399 0.7313578 0.6900293 0.5802522 0.4473695 0.3496276
## Cluster 3 0.6385745 0.6234851 0.7077759 0.7033418 0.6979064 0.5742369 0.4438043
## Cluster 4 0.4226101 0.4563177 0.4685812 0.4474910 0.4385235 0.3614007 0.3120397
  Cluster 5 0.5033922 0.5051293 0.5793879 0.6492069 0.7273190 0.6926466 0.6323922
                                     15556
                 15554
                           15555
                                               15557
                                                         15558
                                                                    15559
                                                                              15560
## Cluster 1 0.2362507 0.2092865 0.1789032 0.1706432 0.1631950 0.1622228 0.1560066
## Cluster 2 0.2621202 0.2187331 0.1902757 0.1690323 0.1560645 0.1537801 0.1479824
## Cluster 3 0.3579560 0.3116043 0.2652482 0.2384142 0.2169716 0.2108738 0.2023078
## Cluster 4 0.2752527 0.2353755 0.2199386 0.2224657 0.2165235 0.2156282 0.2121336
## Cluster 5 0.5268578 0.4047500 0.3470129 0.3197026 0.2779009 0.2396552 0.2207284
##
                 15561
                           15562
                                     15563
                                               15564
                                                         15565
                                                                    15566
                                                                              15567
## Cluster 1 0.1666844 0.1622467 0.1684907 0.1851074 0.2062016 0.2450212 0.3697401
## Cluster 2 0.1470440 0.1568416 0.1710850 0.2100557 0.2370235 0.3301261 0.4684721
## Cluster 3 0.1968950 0.1989191 0.2021518 0.2277504 0.2585206 0.2668270 0.3229603
## Cluster 4 0.2101083 0.2264549 0.2216245 0.3292744 0.4508520 0.6096029 0.7883610
## Cluster 5 0.2330517 0.2256897 0.2436121 0.2214267 0.2279526 0.2532802 0.2922284
                 15568
                           15569
                                     15570
                                               15571
                                                          15572
                                                                    15573
## Cluster 1 0.5590981 0.5523793 0.4923541 0.5000836 0.4839456 0.4737931 0.4441936
## Cluster 2 0.4732375 0.4435455 0.3611730 0.2633548 0.2360557 0.2235982 0.2059501
## Cluster 3 0.3817121 0.4282241 0.4505660 0.4484894 0.4532823 0.4294057 0.4579787
## Cluster 4 0.8071300 0.6407834 0.5698917 0.4548520 0.3956751 0.3463177 0.3961733
## Cluster 5 0.3705517 0.3845086 0.3476724 0.3353879 0.3512457 0.3342974 0.3495302
                 15575
                           15576
                                     15577
                                               15578
                                                         15579
                                                                    15580
                                                                              15581
## Cluster 1 0.4217798 0.3987785 0.4082042 0.4370013 0.4647706 0.4423263 0.4188647
## Cluster 2 0.2056686 0.2289853 0.2326481 0.2317742 0.2405455 0.2482522 0.2371378
## Cluster 3 0.4224525 0.4298043 0.4642326 0.4839078 0.4898908 0.4727858 0.4555206
## Cluster 4 0.3758087 0.3725271 0.3619170 0.3497148 0.3804910 0.3401155 0.3249819
## Cluster 5 0.3527672 0.3601164 0.3302069 0.3501853 0.3121897 0.3447845 0.3285043
                                                         15586
                 15582
                           15583
                                     15584
                                               15585
                                                                    15587
                                                                              15588
## Cluster 1 0.3971790 0.3996379 0.4431737 0.4960279 0.6051088 0.6954019 0.7666141
## Cluster 2 0.2647449 0.2617654 0.2587918 0.2913783 0.2969413 0.3380645 0.4061848
## Cluster 3 0.4532950 0.4753702 0.5366340 0.5843333 0.6078454 0.6269801 0.6686142
## Cluster 4 0.3457581 0.4318592 0.4671588 0.5606426 0.6460794 0.6330325 0.6253827
## Cluster 5 0.3187759 0.3567457 0.3476207 0.3351681 0.3533448 0.3798491 0.3910129
                 15589
                           15590
                                     15591
                                               15592
                                                         15593
                                                                    15594
                                                                              15595
## Cluster 1 0.7313607 0.6352016 0.6576671 0.6362573 0.6344337 0.6202268 0.6188939
## Cluster 2 0.5166334 0.5876891 0.6507947 0.6419296 0.6817009 0.7173196 0.6970264
## Cluster 3 0.7056298 0.6675149 0.6427504 0.6319901 0.5906496 0.5873362 0.6329333
## Cluster 4 0.6283249 0.5556282 0.5683935 0.5253971 0.4389747 0.4268700 0.4694621
## Cluster 5 0.4284483 0.4235474 0.3911983 0.4491595 0.4178879 0.4960259 0.5065431
                                                          15600
##
                 15596
                           15597
                                     15598
                                               15599
                                                                    15601
                                                                              15602
## Cluster 1 0.6175265 0.6261485 0.5804231 0.4962003 0.4038249 0.3150438 0.2268515
## Cluster 2 0.6817302 0.7226481 0.6701730 0.5475806 0.4803666 0.3550674 0.2742610
## Cluster 3 0.6556426 0.7067546 0.7177362 0.6361248 0.5620227 0.4771688 0.3782454
## Cluster 4 0.4601733 0.5162202 0.4405704 0.4692527 0.3897401 0.3321733 0.2768953
## Cluster 5 0.5737716 0.6235819 0.6624095 0.7326940 0.6368060 0.5302672 0.4762543
##
                 15603
                           15604
                                     15605
                                               15606
                                                         15607
                                                                    15608
                                                                              15609
```

```
## Cluster 1 0.2101048 0.1826857 0.1724390 0.1641605 0.1570902 0.1547281 0.1636658
## Cluster 2 0.2097243 0.1919355 0.1760059 0.1516012 0.1490850 0.1487801 0.1611232
## Cluster 3 0.3309489 0.2816255 0.2477972 0.2401716 0.2234865 0.2147461 0.2056284
## Cluster 4 0.2543105 0.2560217 0.2631986 0.2333791 0.2182274 0.2184043 0.2191733
## Cluster 5 0.3990560 0.3328966 0.2868060 0.2696681 0.2560172 0.2306853 0.2285560
                 15610
                           15611
                                               15613
                                                         15614
##
                                     15612
                                                                    15615
## Cluster 1 0.1683912 0.1680053 0.1724947 0.1952095 0.2375902 0.3304363 0.4683515
## Cluster 2 0.1548622 0.1735543 0.1933930 0.2182375 0.3672493 0.3986100 0.4290645
## Cluster 3 0.2024596 0.2106454 0.2199277 0.2373035 0.2610383 0.3156128 0.3582227
## Cluster 4 0.2404621 0.2506245 0.3318773 0.3993538 0.5563610 0.8245812 0.7777653
  Cluster 5 0.2299267 0.2389440 0.2303147 0.2190474 0.2286034 0.2924526 0.3364914
                                     15619
                 15617
                           15618
                                               15620
                                                         15621
                                                                    15622
                                                                              15623
## Cluster 1 0.5576817 0.5238475 0.5034191 0.5031194 0.4793966 0.4660557 0.4379881
## Cluster 2 0.4400323 0.3744106 0.3246774 0.3212610 0.3034428 0.2755953 0.2412581
## Cluster 3 0.4038567 0.4597206 0.4443901 0.4685560 0.4547745 0.4580369 0.4942227
## Cluster 4 0.6205921 0.5245162 0.4644946 0.3961264 0.3898989 0.3847401 0.4244693
## Cluster 5 0.3734914 0.3828103 0.3922802 0.3488750 0.3559784 0.3724397 0.3632629
##
                 15624
                           15625
                                     15626
                                               15627
                                                         15628
                                                                    15629
                                                                              15630
## Cluster 1 0.3943462 0.4255305 0.4522082 0.4425690 0.4291631 0.4208435 0.4071645
## Cluster 2 0.2465367 0.2392639 0.2478152 0.2589736 0.2405982 0.2743548 0.2430880
## Cluster 3 0.4674766 0.5016284 0.5683603 0.5536766 0.5365844 0.5118482 0.4973064
## Cluster 4 0.4161264 0.3587292 0.4058953 0.3932274 0.4168989 0.3906859 0.3995054
## Cluster 5 0.3488707 0.3342716 0.3391552 0.3387112 0.3194310 0.3609828 0.3235086
                 15631
                           15632
                                     15633
                                               15634
                                                         15635
                                                                    15636
## Cluster 1 0.4220265 0.4475663 0.4733581 0.5232944 0.6292188 0.6900729 0.6880199
## Cluster 2 0.2630909 0.3130147 0.3050968 0.3129589 0.3859296 0.4243578 0.4933724
## Cluster 3 0.5382000 0.5583404 0.5649759 0.6082936 0.6381305 0.6342298 0.6239858
## Cluster 4 0.3583899 0.4127834 0.4838809 0.5509711 0.5119458 0.5400397 0.5327978
## Cluster 5 0.3380302 0.3552759 0.4095560 0.3967241 0.4043922 0.4292586 0.4040862
##
                 15638
                           15639
                                     15640
                                               15641
                                                         15642
                                                                    15643
                                                                              15644
## Cluster 1 0.6560040 0.6046340 0.6233024 0.5674456 0.5708820 0.5884045 0.5655531
## Cluster 2 0.5487243 0.5728622 0.5231789 0.5357977 0.5860792 0.5713812 0.5426188
## Cluster 3 0.6128340 0.6092525 0.6059688 0.5819787 0.5864652 0.5647844 0.6159305
## Cluster 4 0.5292960 0.5034260 0.6096318 0.5001588 0.4177581 0.4353646 0.3859134
## Cluster 5 0.4384181 0.4533233 0.4196509 0.4246810 0.4227414 0.4788405 0.5162931
                           15646
                                                         15649
                 15645
                                     15647
                                               15648
                                                                    15650
                                                                              15651
## Cluster 1 0.6196857 0.5768210 0.5126034 0.4512759 0.3469164 0.2779218 0.2401883
## Cluster 2 0.6493519 0.6211261 0.5328915 0.4790557 0.3621085 0.2910587 0.2603636
## Cluster 3 0.7035305 0.6942993 0.6593745 0.5804440 0.5046440 0.4337319 0.3767518
## Cluster 4 0.4589675 0.4680217 0.4493249 0.3809711 0.3184224 0.3002816 0.2523863
## Cluster 5 0.5305474 0.5867845 0.6401897 0.6075560 0.5824655 0.5098190 0.4135647
                 15652
                           15653
                                     15654
                                               15655
                                                         15656
                                                                    15657
                                                                              15658
## Cluster 1 0.2102308 0.1953024 0.1810981 0.1762971 0.1706141 0.1642891 0.1685610
## Cluster 2 0.2187566 0.1983431 0.1901026 0.1728416 0.1730850 0.1582757 0.1718504
## Cluster 3 0.3236525 0.2621177 0.2464709 0.2312085 0.2232794 0.2133418 0.2145986
## Cluster 4 0.2482816 0.2299639 0.2256282 0.2259278 0.2231588 0.2427112 0.2268664
## Cluster 5 0.3935603 0.3759353 0.3288362 0.2872931 0.2696940 0.2764741 0.2571250
                 15659
                           15660
                                                          15663
##
                                     15661
                                               15662
                                                                    15664
                                                                              15665
## Cluster 1 0.1750968 0.1718660 0.1912440 0.2008912 0.2463289 0.3261141 0.4177984
## Cluster 2 0.1753402 0.1812111 0.2026070 0.2328622 0.2446158 0.2577977 0.2965836
## Cluster 3 0.2161291 0.2186837 0.2230667 0.2243248 0.2427489 0.2825915 0.3243447
## Cluster 4 0.2224946 0.2715451 0.3198845 0.3612058 0.5019314 0.6166679 0.5337509
## Cluster 5 0.2299914 0.2208836 0.2400172 0.2246078 0.2457371 0.2695431 0.3155172
##
                 15666
                           15667
                                     15668
                                               15669
                                                         15670
                                                                    15671
                                                                              15672
```

```
## Cluster 1 0.5190504 0.6162851 0.6403488 0.7054523 0.6743647 0.6345570 0.5801499
## Cluster 2 0.4003431 0.4462405 0.4419238 0.4360264 0.4410938 0.4561760 0.4268563
## Cluster 3 0.3834979 0.4598426 0.4989504 0.5853730 0.5879404 0.5948426 0.6104496
## Cluster 4 0.5580722 0.5507906 0.5653249 0.5022599 0.4926029 0.5157762 0.5022491
## Cluster 5 0.3116853 0.3584569 0.3966078 0.4042112 0.4367241 0.4569698 0.4369483
                                               15676
##
                 15673
                           15674
                                     15675
                                                          15677
                                                                    15678
## Cluster 1 0.5542812 0.5682905 0.5560358 0.5393660 0.4827573 0.4624788 0.4836883
## Cluster 2 0.4142815 0.3659384 0.4426862 0.4092845 0.4216100 0.3436598 0.3530997
## Cluster 3 0.6420241 0.6459461 0.6152936 0.6137305 0.5999631 0.5572454 0.5359106
## Cluster 4 0.5060433 0.4542238 0.4521877 0.4245379 0.4065271 0.3942599 0.4106823
  Cluster 5 0.4118750 0.3937500 0.3979052 0.4162328 0.4435733 0.4624353 0.4602414
                                     15682
                 15680
                           15681
                                               15683
                                                          15684
                                                                    15685
                                                                              15686
## Cluster 1 0.5113740 0.5070146 0.5557175 0.6383846 0.7346618 0.7401830 0.7228687
## Cluster 2 0.3763372 0.3978094 0.3965543 0.4500205 0.4474047 0.5175220 0.5509091
## Cluster 3 0.5734369 0.5942454 0.6263915 0.6467759 0.6918227 0.6425518 0.6007433
## Cluster 4 0.4694152 0.5532491 0.5168123 0.5374838 0.5956462 0.5622852 0.5558628
## Cluster 5 0.4460733 0.4199612 0.4150948 0.4301034 0.4250388 0.4865043 0.4960302
##
                 15687
                           15688
                                     15689
                                               15690
                                                          15691
                                                                    15692
                                                                              15693
## Cluster 1 0.6886790 0.6085345 0.5718581 0.5233143 0.5216844 0.5487480 0.5473806
## Cluster 2 0.6242522 0.5423284 0.5329853 0.5659267 0.5355484 0.4985748 0.5270117
## Cluster 3 0.6190383 0.6177135 0.6141177 0.6181730 0.6146270 0.6116340 0.5985433
## Cluster 4 0.4550144 0.5141264 0.4843430 0.4117581 0.4059928 0.4136715 0.3908845
## Cluster 5 0.5270733 0.5008319 0.4842629 0.5136379 0.5320259 0.5064483 0.5941379
                 15694
                           15695
                                     15696
                                               15697
                                                          15698
                                                                    15699
## Cluster 1 0.5277188 0.4625292 0.4014430 0.3421910 0.2852042 0.2520225 0.2259907
## Cluster 2 0.5038328 0.4721818 0.4170117 0.3307977 0.3036569 0.2564487 0.2227977
## Cluster 3 0.6115787 0.6006582 0.5458355 0.4696071 0.4100326 0.3591943 0.3308993
## Cluster 4 0.4164693 0.3775090 0.3558375 0.2917509 0.2778339 0.2384838 0.2310253
## Cluster 5 0.6681207 0.6635302 0.6462500 0.6098147 0.5181336 0.4501121 0.3773750
##
                 15701
                           15702
                                     15703
                                               15704
                                                          15705
                                                                    15706
                                                                              15707
## Cluster 1 0.1945199 0.1958714 0.1758554 0.1770318 0.1643024 0.1621684 0.1647135
## Cluster 2 0.1843724 0.1670205 0.1722727 0.1751408 0.1651378 0.1505367 0.1616686
## Cluster 3 0.2914199 0.2664454 0.2480865 0.2436255 0.2215418 0.2120326 0.2098085
## Cluster 4 0.2410542 0.2258881 0.2227256 0.2226606 0.2205668 0.2283646 0.2349495
## Cluster 5 0.3562802 0.3283319 0.3222716 0.2826595 0.2632759 0.2603836 0.2713448
                                               15711
                                                          15712
                 15708
                           15709
                                     15710
                                                                    15713
                                                                              15714
## Cluster 1 0.1738979 0.1892586 0.1876777 0.2074682 0.2521114 0.3180690 0.4118647
## Cluster 2 0.1859443 0.1816129 0.1866217 0.2074252 0.2233607 0.2798416 0.2795718
## Cluster 3 0.2158440 0.2193816 0.2268652 0.2290454 0.2536908 0.2674511 0.3532482
## Cluster 4 0.2725162 0.3083538 0.3448736 0.4267870 0.4590108 0.4363249 0.4975812
## Cluster 5 0.2285388 0.2384483 0.2345862 0.2369397 0.2615560 0.3202457 0.3248448
                 15715
                           15716
                                     15717
                                               15718
                                                          15719
                                                                    15720
                                                                              15721
## Cluster 1 0.4792639 0.5597414 0.6585544 0.6807255 0.7075822 0.6925451 0.6732931
## Cluster 2 0.3275894 0.3766217 0.4293519 0.4585425 0.4650587 0.4629150 0.4581437
## Cluster 3 0.3898780 0.4916681 0.5712241 0.6992128 0.6936468 0.7022369 0.7577234
## Cluster 4 0.4959747 0.5329278 0.5366570 0.6008087 0.6346209 0.6388520 0.5718520
## Cluster 5 0.3684267 0.3937759 0.4495991 0.4710819 0.4552716 0.5521207 0.4696422
                                                          15726
##
                 15722
                           15723
                                     15724
                                               15725
                                                                    15727
                                                                              15728
## Cluster 1 0.6899828 0.6599416 0.6534098 0.6236565 0.5858541 0.5455199 0.5487493
## Cluster 2 0.4845132 0.4389326 0.4582933 0.4224575 0.4215425 0.3991437 0.3761848
## Cluster 3 0.7530681 0.7464397 0.7778567 0.6878071 0.6314312 0.5821972 0.5880809
## Cluster 4 0.5797148 0.5495523 0.5404116 0.5322924 0.4642094 0.4825235 0.4281841
## Cluster 5 0.4806422 0.4457457 0.4696552 0.4370560 0.4087586 0.4547500 0.4638233
##
                 15729
                           15730
                                     15731
                                               15732
                                                          15733
                                                                    15734
                                                                              15735
```

```
## Cluster 1 0.5420000 0.5329257 0.5851167 0.6608515 0.6871578 0.6487454 0.6352162
## Cluster 2 0.4058270 0.3678651 0.3653842 0.4441584 0.5034282 0.5191232 0.5119765
## Cluster 3 0.6148355 0.6290057 0.5711560 0.5883418 0.6167546 0.6133418 0.5557348
## Cluster 4 0.4652816 0.4770758 0.4882708 0.5280794 0.5204079 0.5506498 0.4712563
## Cluster 5 0.4212328 0.4177974 0.4697716 0.4506595 0.4198103 0.4063578 0.4879267
                 15736
                                                          15740
                                                                    15741
##
                           15737
                                     15738
                                               15739
                                                                              15742
## Cluster 1 0.6092188 0.5891512 0.5841578 0.5324443 0.5347533 0.5184164 0.4974324
## Cluster 2 0.4727537 0.4430264 0.4567801 0.4751672 0.4736745 0.5767859 0.5268065
## Cluster 3 0.5443645 0.5574028 0.5719745 0.5572738 0.5642950 0.5805915 0.5959220
## Cluster 4 0.4732671 0.4816390 0.4540794 0.4212094 0.4040650 0.4105162 0.4603502
  Cluster 5 0.4991595 0.4504310 0.4343276 0.4845603 0.5018836 0.5158836 0.5479698
                 15743
                           15744
                                     15745
                                               15746
                                                          15747
                                                                    15748
                                                                              15749
## Cluster 1 0.4654138 0.4014138 0.3258515 0.2698077 0.2282149 0.2131340 0.1916830
## Cluster 2 0.4829091 0.4185865 0.3724927 0.2991202 0.2492141 0.2089912 0.1936481
## Cluster 3 0.5723333 0.5295064 0.4568156 0.3887121 0.3425660 0.3057518 0.2681943
## Cluster 4 0.4211949 0.3886137 0.3109892 0.2732419 0.2446823 0.2363105 0.2066751
## Cluster 5 0.6015819 0.6426379 0.5722457 0.4709698 0.4125172 0.3901293 0.3356638
##
                 15750
                           15751
                                     15752
                                               15753
                                                          15754
                                                                    15755
                                                                              15756
## Cluster 1 0.1835358 0.1831061 0.1691897 0.1724390 0.1715849 0.1759775 0.1754390
## Cluster 2 0.1807566 0.1846804 0.1702874 0.1571408 0.1566334 0.1630059 0.1662581
## Cluster 3 0.2526326 0.2440383 0.2319546 0.2135064 0.2092312 0.1982596 0.2074511
## Cluster 4 0.2158051 0.2194657 0.2099567 0.2206390 0.2587617 0.2259964 0.2441444
## Cluster 5 0.3304052 0.2786078 0.2737069 0.2586681 0.2503621 0.2392284 0.2195862
                 15757
                           15758
                                     15759
                                               15760
                                                          15761
                                                                    15762
## Cluster 1 0.1804934 0.1848966 0.2124708 0.2434151 0.2862507 0.3556923 0.4445796
## Cluster 2 0.1759501 0.2022551 0.1959795 0.2097918 0.2341173 0.2884370 0.2916862
## Cluster 3 0.2136752 0.2155915 0.2165418 0.2315957 0.2664582 0.2986766 0.3420780
## Cluster 4 0.2906534 0.3504910 0.4057220 0.4632635 0.4439819 0.4598448 0.4824440
## Cluster 5 0.2128491 0.2152845 0.2306078 0.2447328 0.2764052 0.2992759 0.3331379
##
                 15764
                           15765
                                     15766
                                               15767
                                                          15768
                                                                    15769
                                                                              15770
## Cluster 1 0.5417865 0.5980146 0.6492891 0.7035862 0.7075225 0.6515782 0.6232387
## Cluster 2 0.3801730 0.3755806 0.4118710 0.3706921 0.3907713 0.4462053 0.4802522
## Cluster 3 0.4400468 0.5105645 0.5691773 0.5980369 0.6034496 0.6352823 0.6206397
## Cluster 4 0.5302563 0.4970758 0.5059422 0.5227365 0.6081300 0.6104729 0.5900903
## Cluster 5 0.3474353 0.4028922 0.4472155 0.4421767 0.5176724 0.5957328 0.5506767
                           15772
                                               15774
                 15771
                                     15773
                                                          15775
                                                                    15776
                                                                              15777
## Cluster 1 0.6367069 0.6290902 0.6304841 0.5941167 0.5937812 0.6027507 0.6030676
## Cluster 2 0.5375777 0.5743519 0.4947654 0.4287390 0.4545953 0.4521349 0.4620499
## Cluster 3 0.6696213 0.6888638 0.6981234 0.6731858 0.6661631 0.6763234 0.6606865
## Cluster 4 0.6014188 0.5740253 0.5228267 0.4640505 0.5374946 0.5745704 0.6057401
## Cluster 5 0.5492802 0.4979612 0.5345086 0.4612284 0.4779914 0.5143448 0.5069784
                 15778
                           15779
                                     15780
                                               15781
                                                          15782
                                                                    15783
                                                                              15784
## Cluster 1 0.6321698 0.7294509 0.7982613 0.7794005 0.8041538 0.7748594 0.7191446
## Cluster 2 0.4777273 0.5341290 0.6082991 0.6336657 0.6866657 0.7576862 0.6878827
## Cluster 3 0.6541362 0.6676482 0.6669929 0.7223518 0.6943262 0.6676908 0.6433277
## Cluster 4 0.5309025 0.6332094 0.6546823 0.6284224 0.5912780 0.5415090 0.5267762
## Cluster 5 0.4978060 0.5109655 0.5495345 0.5468491 0.5633060 0.5381379 0.4826983
                 15785
                           15786
                                     15787
                                                          15789
##
                                               15788
                                                                    15790
                                                                              15791
## Cluster 1 0.6698156 0.6623753 0.6708329 0.6454682 0.5991273 0.5364987 0.4721446
## Cluster 2 0.6973783 0.6962903 0.6929326 0.7125396 0.6689648 0.6305718 0.5303343
## Cluster 3 0.6645262 0.6613603 0.6888965 0.6886695 0.6767376 0.6900270 0.6596780
## Cluster 4 0.5624007 0.5527256 0.5275235 0.4894621 0.4558375 0.4406390 0.3698484
## Cluster 5 0.5023448 0.5380474 0.6073707 0.6252457 0.6423578 0.7036638 0.7336853
##
                 15792
                           15793
                                     15794
                                               15795
                                                          15796
                                                                    15797
                                                                              15798
```

```
## Cluster 1 0.3872812 0.2979576 0.2375769 0.2008011 0.1864602 0.1637878 0.1564987
## Cluster 2 0.4348211 0.3261026 0.2631613 0.2028299 0.1963988 0.1690645 0.1543607
## Cluster 3 0.5657021 0.4622539 0.3759333 0.3164298 0.2827844 0.2439277 0.2329007
## Cluster 4 0.3587906 0.2957509 0.2585343 0.2434729 0.2242708 0.2198159 0.2076318
## Cluster 5 0.7490647 0.6459741 0.5188621 0.4183534 0.3630259 0.3389224 0.3116724
                 15799
                           15800
                                     15801
                                               15802
                                                         15803
##
                                                                    15804
## Cluster 1 0.1572599 0.1532891 0.1567639 0.1638899 0.1714562 0.1726048 0.2028395
## Cluster 2 0.1516364 0.1474575 0.1421642 0.1454252 0.1672287 0.1998622 0.2399677
## Cluster 3 0.2162695 0.2109504 0.2078695 0.2107915 0.2073319 0.2325745 0.2395589
## Cluster 4 0.2144224 0.2129567 0.2177076 0.2401949 0.2486245 0.2933177 0.3802130
  Cluster 5 0.2789741 0.2502931 0.2632759 0.2551250 0.2492198 0.2930474 0.2592629
                           15807
                                     15808
                 15806
                                               15809
                                                         15810
                                                                    15811
                                                                              15812
## Cluster 1 0.2314920 0.3144138 0.4409072 0.4693899 0.4499695 0.4926751 0.5472228
## Cluster 2 0.2947302 0.4111906 0.3651290 0.4263050 0.2876452 0.2526804 0.2637625
## Cluster 3 0.2494014 0.2823617 0.3092823 0.3537234 0.4108142 0.4163773 0.4198496
## Cluster 4 0.5519603 0.6579025 0.6787509 0.6714116 0.5520469 0.4539964 0.4401913
## Cluster 5 0.2465302 0.2759784 0.3350431 0.3583707 0.3583621 0.3463319 0.3468750
##
                 15813
                           15814
                                     15815
                                               15816
                                                         15817
                                                                    15818
                                                                              15819
## Cluster 1 0.5172467 0.4700491 0.4996897 0.4615716 0.4911154 0.5357268 0.5459854
## Cluster 2 0.2476012 0.2491408 0.2547654 0.2347654 0.2326041 0.2921378 0.3228944
## Cluster 3 0.4611972 0.4711716 0.4916369 0.5256993 0.5383929 0.5544851 0.5916411
## Cluster 4 0.4358051 0.4363755 0.4088087 0.4475776 0.4366065 0.4204765 0.4430072
## Cluster 5 0.3528448 0.3234784 0.3117629 0.3723664 0.3621034 0.3910517 0.3818147
                 15820
                           15821
                                     15822
                                               15823
                                                          15824
                                                                    15825
## Cluster 1 0.4849496 0.4594668 0.4486817 0.4731207 0.5112533 0.5772878 0.6947109
## Cluster 2 0.3290000 0.2868915 0.2403607 0.2675396 0.2875367 0.3067243 0.3165015
## Cluster 3 0.5674241 0.5576766 0.5510085 0.5943021 0.6068837 0.6865532 0.7363035
## Cluster 4 0.3860722 0.3409964 0.3664549 0.3669495 0.4271625 0.5215126 0.6254079
## Cluster 5 0.3853793 0.3300431 0.3467241 0.3477759 0.3625647 0.3986724 0.4305991
##
                 15827
                           15828
                                     15829
                                               15830
                                                         15831
                                                                    15832
                                                                              15833
## Cluster 1 0.8972401 0.9530889 0.8653276 0.7721618 0.8289324 0.7198607 0.7337732
## Cluster 2 0.4311232 0.5343109 0.6222170 0.7234164 0.6677918 0.7067977 0.8238563
## Cluster 3 0.7570369 0.7538582 0.6986766 0.6912213 0.6626709 0.6563915 0.6795262
## Cluster 4 0.6617365 0.6730469 0.6542419 0.5856137 0.5562708 0.5753899 0.5950722
## Cluster 5 0.4698017 0.5191853 0.4856078 0.5411983 0.5174784 0.5364957 0.5393664
                           15835
                                     15836
                                               15837
                 15834
                                                         15838
                                                                    15839
## Cluster 1 0.7110491 0.6991897 0.6554098 0.6313554 0.5622507 0.5079138 0.3903369
## Cluster 2 0.7854252 0.8191848 0.7369062 0.6994106 0.6675748 0.5790880 0.4409267
## Cluster 3 0.7010851 0.7046723 0.7119135 0.6974411 0.6584270 0.6441191 0.5636170
## Cluster 4 0.5123430 0.5309964 0.5216065 0.4982527 0.4728231 0.4415848 0.3508231
## Cluster 5 0.5937716 0.5964655 0.5903060 0.6071681 0.6961940 0.7731509 0.6694526
                 15841
                           15842
                                     15843
                                               15844
                                                         15845
                                                                    15846
                                                                              15847
## Cluster 1 0.2886565 0.2392533 0.1966698 0.1748581 0.1605385 0.1553886 0.1589735
## Cluster 2 0.3323519 0.2489443 0.2111701 0.1905220 0.1607625 0.1607654 0.1579648
## Cluster 3 0.4697801 0.3817957 0.3006979 0.2709064 0.2439433 0.2295262 0.2186681
## Cluster 4 0.3132130 0.2373249 0.2106715 0.1934801 0.1975993 0.1936318 0.1973899
## Cluster 5 0.5617371 0.4989655 0.4031810 0.3340431 0.3172802 0.2859612 0.2801121
                           15849
                                     15850
                                                          15852
##
                 15848
                                               15851
                                                                    15853
                                                                              15854
## Cluster 1 0.1514151 0.1576114 0.1618767 0.1655517 0.1737772 0.1873634 0.2377520
## Cluster 2 0.1483284 0.1443636 0.1502346 0.1672346 0.1823871 0.2252551 0.3343109
## Cluster 3 0.2108000 0.2093730 0.2027504 0.2158071 0.2246340 0.2600723 0.2648369
## Cluster 4 0.2061191 0.2128159 0.2233141 0.2242383 0.2926173 0.4103105 0.5648700
## Cluster 5 0.2457845 0.2368017 0.2362198 0.2395517 0.2333664 0.2320431 0.2905431
##
                 15855
                           15856
                                     15857
                                               15858
                                                         15859
                                                                    15860
                                                                              15861
```

```
## Cluster 1 0.3591260 0.5000836 0.5377308 0.5213408 0.4902281 0.4379549 0.4617812
## Cluster 2 0.4251525 0.3682581 0.4370000 0.3634252 0.3106452 0.3044370 0.2817889
## Cluster 3 0.3169887 0.3731035 0.4199362 0.4244156 0.4215376 0.4305915 0.4157277
## Cluster 4 0.6863827 0.7964801 0.6932455 0.5342527 0.4032347 0.3838195 0.4052671
## Cluster 5 0.3369440 0.4108060 0.4080905 0.3706250 0.3688879 0.3442112 0.3526293
                 15862
                           15863
                                                          15866
##
                                     15864
                                               15865
                                                                    15867
                                                                              15868
## Cluster 1 0.4804231 0.4727215 0.4736950 0.5225119 0.5182679 0.5253143 0.4946804
## Cluster 2 0.2451261 0.2333050 0.2603988 0.2493871 0.2631701 0.2735337 0.2788534
## Cluster 3 0.4289532 0.4805234 0.4750496 0.5093901 0.4935816 0.5371050 0.5202213
## Cluster 4 0.3993935 0.4214513 0.3808195 0.3717978 0.3726065 0.4316318 0.3673177
  Cluster 5 0.3312328 0.3135862 0.3561379 0.3597112 0.3879871 0.3817026 0.3735819
                                     15871
                                               15872
                 15869
                           15870
                                                          15873
                                                                    15874
                                                                              15875
## Cluster 1 0.4730424 0.4629072 0.4718793 0.5087653 0.5664536 0.7330623 0.8536114
## Cluster 2 0.2815279 0.2626364 0.2772845 0.3181466 0.3540587 0.3946481 0.4467830
## Cluster 3 0.5279532 0.5334369 0.5730809 0.6471674 0.6599759 0.7281730 0.7086723
## Cluster 4 0.3608917 0.3721119 0.4555523 0.4822383 0.5326173 0.6405560 0.6593069
## Cluster 5 0.3765259 0.3534698 0.3256853 0.3783534 0.4255345 0.4226207 0.4620345
##
                 15876
                           15877
                                     15878
                                               15879
                                                          15880
                                                                    15881
                                                                              15882
## Cluster 1 0.9392666 0.8781578 0.7621499 0.7655995 0.7335438 0.7024907 0.6690849
## Cluster 2 0.5526950 0.6391877 0.7003607 0.7545337 0.7273196 0.7586716 0.7383167
## Cluster 3 0.7176241 0.7370511 0.7160482 0.7387092 0.6941418 0.6607759 0.6478738
## Cluster 4 0.6671227 0.6611083 0.5603682 0.5465848 0.5353718 0.5341011 0.5199928
## Cluster 5 0.4703405 0.5501897 0.5887500 0.5749784 0.5352155 0.5076638 0.5255819
                 15883
                           15884
                                     15885
                                               15886
                                                          15887
                                                                    15888
## Cluster 1 0.6839788 0.6296446 0.6428966 0.5736538 0.4879775 0.3804350 0.3012056
## Cluster 2 0.7161965 0.7378182 0.7551965 0.6572023 0.5924721 0.4517566 0.3418328
## Cluster 3 0.7324440 0.7081106 0.7268099 0.6939362 0.6569291 0.5733078 0.4821617
## Cluster 4 0.5458014 0.5015199 0.4963610 0.4765668 0.4212274 0.3478231 0.2874188
## Cluster 5 0.5975991 0.5927026 0.6308103 0.6838147 0.6956422 0.7466164 0.6377112
##
                 15890
                           15891
                                     15892
                                               15893
                                                          15894
                                                                    15895
                                                                              15896
## Cluster 1 0.2370000 0.2032255 0.1775279 0.1672109 0.1620610 0.1555955 0.1543607
## Cluster 2 0.2470381 0.2084751 0.1811935 0.1746188 0.1579413 0.1482991 0.1393695
## Cluster 3 0.3908071 0.3260624 0.2693518 0.2411461 0.2248142 0.2073376 0.2081305
## Cluster 4 0.2452527 0.2204693 0.2055054 0.2071841 0.1999567 0.1992022 0.1977148
  Cluster 5 0.5154052 0.4196724 0.3363319 0.3178966 0.3041681 0.2717241 0.2436379
                                     15899
                 15897
                           15898
                                               15900
                                                          15901
                                                                    15902
                                                                              15903
## Cluster 1 0.1542639 0.1654602 0.1730915 0.1711711 0.2128952 0.2394072 0.3536605
## Cluster 2 0.1423812 0.1436628 0.1704780 0.2100059 0.2476628 0.2656305 0.4343255
## Cluster 3 0.1973050 0.1981915 0.2082936 0.2097986 0.2370851 0.2621773 0.2975177
## Cluster 4 0.2090650 0.2316931 0.2374296 0.2860253 0.4007184 0.6595451 0.7945307
## Cluster 5 0.2700172 0.2254914 0.2521336 0.2501681 0.2386207 0.2953276 0.3333879
                 15904
                           15905
                                     15906
                                               15907
                                                          15908
                                                                    15909
                                                                              15910
## Cluster 1 0.5011645 0.5156180 0.5165279 0.5098342 0.4834443 0.4550782 0.4311777
## Cluster 2 0.4506041 0.4128739 0.3334076 0.3013196 0.2808504 0.2621232 0.2869326
## Cluster 3 0.3475248 0.4227390 0.4566496 0.4866113 0.4752610 0.4458539 0.4478525
## Cluster 4 0.7920578 0.6038700 0.5091625 0.3961841 0.3974621 0.3719350 0.3488520
## Cluster 5 0.4099224 0.4238147 0.3274569 0.3606638 0.3055259 0.3543879 0.3654914
##
                 15911
                           15912
                                     15913
                                               15914
                                                          15915
                                                                    15916
                                                                              15917
## Cluster 1 0.4247613 0.4265597 0.4671114 0.5056472 0.5100915 0.4656751 0.4425703
## Cluster 2 0.2464457 0.2775044 0.2534985 0.2544692 0.2540411 0.2491730 0.2635806
## Cluster 3 0.4157106 0.4408553 0.4645759 0.4824638 0.5282624 0.5100482 0.4930270
## Cluster 4 0.4142960 0.4472310 0.3647798 0.4522455 0.4311877 0.3847762 0.3776390
## Cluster 5 0.3492241 0.3308276 0.4051940 0.3758060 0.3568017 0.3305560 0.3412198
##
                 15918
                           15919
                                     15920
                                               15921
                                                          15922
                                                                    15923
                                                                              15924
```

```
## Cluster 1 0.4206989 0.4363501 0.4527692 0.5182507 0.6112851 0.7062878 0.8317082
## Cluster 2 0.2506862 0.2293050 0.2565132 0.3220499 0.3058035 0.3415425 0.4228006
## Cluster 3 0.5166624 0.5484142 0.5881191 0.6020794 0.6924823 0.6371234 0.6523872
## Cluster 4 0.3491552 0.4262419 0.4416823 0.5300433 0.5891588 0.6157076 0.6694260
## Cluster 5 0.3650862 0.3159871 0.3860733 0.3540560 0.3494181 0.3581897 0.4347026
                 15925
                                     15927
                                               15928
                                                         15929
##
                           15926
                                                                    15930
## Cluster 1 0.7820650 0.6451883 0.6507082 0.6681366 0.5981233 0.5955040 0.6112865
## Cluster 2 0.5623138 0.6834457 0.6735777 0.6090850 0.6809736 0.6743959 0.6677038
## Cluster 3 0.6738227 0.6253348 0.6395220 0.6288638 0.5972667 0.5773376 0.6191475
## Cluster 4 0.6042419 0.5230830 0.5256462 0.5280397 0.4742274 0.4526318 0.5065307
  Cluster 5 0.4818405 0.4144181 0.4642328 0.5092026 0.5340647 0.5245431 0.5107328
                           15933
                                     15934
                 15932
                                               15935
                                                         15936
                                                                    15937
                                                                              15938
## Cluster 1 0.6316857 0.6276631 0.6132825 0.5414788 0.4440013 0.3295027 0.2464310
## Cluster 2 0.6048827 0.7021320 0.6652170 0.6544721 0.4785337 0.3539648 0.2791848
## Cluster 3 0.6924411 0.7105489 0.7185035 0.6967645 0.6159830 0.4969660 0.4071844
## Cluster 4 0.4833718 0.5009892 0.4846137 0.4604332 0.4116679 0.3077076 0.2626498
## Cluster 5 0.5487414 0.5797716 0.6887198 0.7050388 0.7162371 0.6286293 0.5600259
##
                 15939
                           15940
                                     15941
                                               15942
                                                         15943
                                                                    15944
                                                                              15945
## Cluster 1 0.2079509 0.1772042 0.1659934 0.1592069 0.1526273 0.1517599 0.1578714
## Cluster 2 0.2134809 0.1796481 0.1522405 0.1483988 0.1541349 0.1495073 0.1474868
## Cluster 3 0.3458809 0.2853319 0.2569801 0.2264823 0.2157773 0.2077447 0.2065787
## Cluster 4 0.2364982 0.2245812 0.2164007 0.2034440 0.2052708 0.1944296 0.1995560
## Cluster 5 0.4819009 0.4082845 0.3545733 0.3164526 0.2770517 0.2544828 0.2684009
                 15946
                           15947
                                     15948
                                               15949
                                                         15950
                                                                    15951
## Cluster 1 0.1661127 0.1646048 0.1734098 0.1930292 0.2272918 0.3374881 0.4948674
## Cluster 2 0.1547449 0.1699032 0.1928152 0.2786100 0.3454751 0.3998299 0.4065132
## Cluster 3 0.2098823 0.2099262 0.2100624 0.2442936 0.2671191 0.3131433 0.3689560
## Cluster 4 0.2275632 0.2193538 0.3167545 0.4144152 0.6111191 0.7722383 0.7713610
## Cluster 5 0.2562069 0.2833060 0.2686595 0.2500216 0.2824741 0.2935474 0.3847328
##
                 15953
                           15954
                                     15955
                                               15956
                                                         15957
                                                                    15958
                                                                              15959
## Cluster 1 0.5543820 0.5046167 0.5350928 0.5404244 0.4681883 0.4425531 0.4454191
## Cluster 2 0.4235865 0.3225894 0.2947859 0.2850880 0.3178299 0.2736950 0.2597185
## Cluster 3 0.4244624 0.4251532 0.4262681 0.4267078 0.4431092 0.4239929 0.4437390
## Cluster 4 0.6351480 0.5797942 0.4416823 0.3551913 0.3587581 0.3582635 0.3763755
## Cluster 5 0.4128966 0.3466078 0.3890560 0.3861078 0.3949181 0.3792974 0.3872586
                 15960
                           15961
                                     15962
                                               15963
                                                         15964
                                                                    15965
                                                                              15966
## Cluster 1 0.3958780 0.4255809 0.4655995 0.4609801 0.4242321 0.4075398 0.4291512
## Cluster 2 0.2433255 0.2388944 0.2602463 0.3091642 0.2953460 0.2592669 0.2668446
## Cluster 3 0.4561390 0.5019560 0.5029972 0.5057121 0.5191660 0.5152071 0.5260043
## Cluster 4 0.3962022 0.4897148 0.4010794 0.4028736 0.4082347 0.4323755 0.4196751
## Cluster 5 0.4198448 0.4026810 0.3906853 0.3516121 0.3827155 0.3595000 0.3790474
                           15968
                                     15969
                                               15970
                                                         15971
                 15967
                                                                    15972
                                                                              15973
## Cluster 1 0.4321472 0.4325584 0.4608621 0.5697997 0.7125066 0.7974775 0.7643422
## Cluster 2 0.2910645 0.2652815 0.2772375 0.3499971 0.4204897 0.4586921 0.5505630
## Cluster 3 0.5421305 0.6047333 0.5978156 0.6395191 0.6805404 0.6433191 0.6449376
## Cluster 4 0.4073610 0.4530000 0.5126101 0.5143141 0.5929747 0.6792202 0.5961841
## Cluster 5 0.4149871 0.4112629 0.3925345 0.4115086 0.4211940 0.4358621 0.4858276
##
                 15974
                           15975
                                     15976
                                               15977
                                                         15978
                                                                    15979
                                                                              15980
## Cluster 1 0.6900544 0.6830000 0.6466485 0.6281976 0.5854549 0.6019297 0.5974828
## Cluster 2 0.6092551 0.6368152 0.5988710 0.6047361 0.6664018 0.6227009 0.6855748
## Cluster 3 0.5973433 0.6238780 0.6198227 0.6122057 0.6070809 0.6139106 0.6256511
## Cluster 4 0.5507220 0.4979531 0.4880722 0.4918484 0.5023466 0.4735596 0.4626715
## Cluster 5 0.4800948 0.4844353 0.5078621 0.4670517 0.4284009 0.4715991 0.5101250
##
                 15981
                           15982
                                     15983
                                               15984
                                                         15985
                                                                    15986
```

```
## Cluster 1 0.5793316 0.5575451 0.5152003 0.4216048 0.3341485 0.2682666 0.2306207
## Cluster 2 0.7065894 0.6735308 0.6071994 0.4725748 0.3969677 0.2988328 0.2764370
## Cluster 3 0.6837589 0.6563858 0.6223603 0.5603475 0.5108496 0.4086922 0.3451844
## Cluster 4 0.4481408 0.4416968 0.3830614 0.3872058 0.3275054 0.2849458 0.2551588
## Cluster 5 0.5440819 0.5725991 0.5845905 0.6532716 0.6245345 0.5360991 0.4385474
                 15988
                           15989
                                                         15992
##
                                     15990
                                               15991
                                                                    15993
## Cluster 1 0.1979615 0.1823554 0.1694775 0.1692347 0.1663740 0.1624523 0.1740119
## Cluster 2 0.2212434 0.1961261 0.1717654 0.1692346 0.1529531 0.1480147 0.1555220
## Cluster 3 0.3049972 0.2623560 0.2469957 0.2368624 0.2194709 0.2025447 0.1995418
## Cluster 4 0.2304946 0.2203249 0.2084404 0.2134838 0.2063032 0.2169386 0.2619314
  Cluster 5 0.3550345 0.3108922 0.2918966 0.2616681 0.2486638 0.2433233 0.2437672
                           15996
                                     15997
                 15995
                                               15998
                                                         15999
                                                                    16000
                                                                              16001
## Cluster 1 0.1688475 0.1607944 0.1739973 0.2019509 0.2510769 0.2854058 0.3751379
## Cluster 2 0.1709296 0.1695425 0.1991760 0.2485484 0.2430528 0.2451085 0.2893783
## Cluster 3 0.2067745 0.2060950 0.2198681 0.2219801 0.2254340 0.2516851 0.2881674
## Cluster 4 0.2411119 0.2911300 0.3535921 0.4506823 0.5329061 0.5576751 0.5752527
## Cluster 5 0.2393664 0.2083707 0.2311034 0.2437069 0.2392457 0.2754397 0.2993362
##
                 16002
                           16003
                                     16004
                                               16005
                                                         16006
                                                                    16007
                                                                              16008
## Cluster 1 0.4618647 0.5731684 0.6082056 0.6141499 0.6348621 0.6454973 0.6224363
## Cluster 2 0.3601818 0.4289824 0.4615220 0.4775367 0.4587449 0.4511730 0.4290880
## Cluster 3 0.3419489 0.4279121 0.4728440 0.5385291 0.6134113 0.6462738 0.6601901
## Cluster 4 0.6074765 0.6173610 0.5724585 0.5227870 0.5278881 0.5191697 0.5190253
## Cluster 5 0.3486379 0.4027543 0.3488060 0.3822500 0.3686336 0.3840388 0.3706207
                 16009
                           16010
                                     16011
                                               16012
                                                          16013
                                                                    16014
## Cluster 1 0.6422480 0.6295053 0.6246790 0.5946844 0.5481485 0.5089297 0.5195703
## Cluster 2 0.4320293 0.3832287 0.3965367 0.4288475 0.4160909 0.3925279 0.4263138
## Cluster 3 0.6646128 0.6982610 0.6879475 0.5989504 0.5598255 0.5557943 0.5610468
## Cluster 4 0.4876715 0.4588303 0.4840542 0.4875307 0.4906173 0.4285271 0.4308195
## Cluster 5 0.4027716 0.4932500 0.4572586 0.4896638 0.4336293 0.4272198 0.4242112
##
                 16016
                           16017
                                     16018
                                               16019
                                                         16020
                                                                    16021
                                                                              16022
## Cluster 1 0.5256963 0.5919907 0.5798011 0.6617387 0.8003156 0.7951167 0.7768276
## Cluster 2 0.3866950 0.3817801 0.4404633 0.4471672 0.5417361 0.6232258 0.6628006
## Cluster 3 0.5390851 0.5704709 0.5938227 0.6673844 0.7200326 0.7529135 0.7496142
## Cluster 4 0.4728556 0.5160289 0.5719783 0.6670289 0.6560939 0.6248484 0.5855776
## Cluster 5 0.4188319 0.4044267 0.3941466 0.4101853 0.4160603 0.4630216 0.5145302
                           16024
                                     16025
                                                         16027
                 16023
                                               16026
                                                                    16028
                                                                              16029
## Cluster 1 0.7685040 0.6945385 0.6639072 0.6087958 0.5850637 0.5888422 0.5841923
## Cluster 2 0.6985924 0.7116129 0.6965484 0.6164663 0.5794721 0.6290733 0.6362669
## Cluster 3 0.7138553 0.6396851 0.6870681 0.6329830 0.5998142 0.6127504 0.6374014
## Cluster 4 0.5524007 0.5488989 0.4640578 0.4525126 0.4043502 0.4470433 0.4590794
## Cluster 5 0.5363793 0.5003276 0.4503448 0.4957974 0.4784483 0.4905991 0.5977629
                 16030
                           16031
                                     16032
                                               16033
                                                         16034
                                                                    16035
                                                                              16036
## Cluster 1 0.5621273 0.4954111 0.4277905 0.3364828 0.2868143 0.2370623 0.2094284
## Cluster 2 0.6300616 0.5598446 0.4765073 0.3895484 0.3280264 0.2910293 0.2350880
## Cluster 3 0.6165957 0.6113589 0.5280525 0.5062355 0.4152823 0.3611943 0.3177702
## Cluster 4 0.4577040 0.4188303 0.3388087 0.2983791 0.2716354 0.2509892 0.2413899
## Cluster 5 0.5958103 0.6631121 0.6297672 0.5757457 0.4891552 0.4234612 0.3663793
                           16038
                                     16039
##
                 16037
                                               16040
                                                          16041
                                                                    16042
                                                                              16043
## Cluster 1 0.1881485 0.1862016 0.1767666 0.1770782 0.1639549 0.1694576 0.1679483
## Cluster 2 0.2046891 0.1835894 0.1827273 0.1718475 0.1710205 0.1573578 0.1757097
## Cluster 3 0.2884085 0.2538454 0.2353986 0.2302766 0.2193376 0.2076780 0.2105262
## Cluster 4 0.2220325 0.2160830 0.2165126 0.2050397 0.2099061 0.2152166 0.2208123
## Cluster 5 0.3557414 0.3105000 0.2802069 0.2606078 0.2560000 0.2600302 0.2413793
##
                 16044
                           16045
                                     16046
                                               16047
                                                         16048
                                                                    16049
                                                                              16050
```

```
## Cluster 1 0.1773422 0.1821923 0.1920292 0.2255849 0.2787268 0.3351432 0.3956379
## Cluster 2 0.1684370 0.1859501 0.1987067 0.1977009 0.2385308 0.2687654 0.3198270
## Cluster 3 0.2156709 0.2200128 0.2153957 0.2229518 0.2516525 0.2822511 0.3320496
## Cluster 4 0.2596245 0.3444043 0.4118484 0.4805451 0.4985596 0.4439892 0.4851986
## Cluster 5 0.2361897 0.2083707 0.2223707 0.2236767 0.2660474 0.2612414 0.3241034
                           16052
                                     16053
                                               16054
                                                          16055
                                                                    16056
##
                 16051
## Cluster 1 0.5166817 0.6158156 0.6697533 0.7309403 0.7042374 0.7267851 0.7945703
## Cluster 2 0.3673343 0.4275367 0.4609531 0.5169120 0.5040440 0.5135220 0.5114751
## Cluster 3 0.3972979 0.4346326 0.5780936 0.6135319 0.6426213 0.6938681 0.7311092
## Cluster 4 0.5135993 0.5648664 0.5804116 0.5251300 0.5236895 0.5683430 0.6569386
  Cluster 5 0.3490431 0.3505302 0.3894612 0.4150647 0.4569784 0.4857112 0.4553707
                 16058
                           16059
                                     16060
                                               16061
                                                          16062
                                                                    16063
                                                                              16064
## Cluster 1 0.8314151 0.7927308 0.7526870 0.6813939 0.6778488 0.6540663 0.6058727
## Cluster 2 0.5223666 0.5802434 0.5228006 0.5104311 0.5307654 0.4845513 0.4531232
## Cluster 3 0.7724113 0.7830723 0.7525943 0.6813730 0.6532837 0.6520085 0.6446482
## Cluster 4 0.6028484 0.5798195 0.5503069 0.5236643 0.4920794 0.5013357 0.4733791
## Cluster 5 0.4464698 0.4240216 0.4615259 0.4443190 0.4429569 0.4366810 0.4446681
##
                 16065
                           16066
                                     16067
                                               16068
                                                          16069
                                                                    16070
                                                                              16071
## Cluster 1 0.6525225 0.6334987 0.6795902 0.7216393 0.7201790 0.7416751 0.7011154
## Cluster 2 0.4593490 0.5006921 0.5309707 0.5995484 0.6549677 0.6761056 0.7035132
## Cluster 3 0.6264241 0.6564652 0.6912113 0.7052738 0.6621957 0.6408199 0.6055574
## Cluster 4 0.5221733 0.5903827 0.6351227 0.5879892 0.6526065 0.5479819 0.5441516
## Cluster 5 0.4851983 0.5023276 0.4820259 0.4424224 0.4604397 0.5060216 0.5185431
                 16072
                           16073
                                     16074
                                               16075
                                                          16076
                                                                    16077
## Cluster 1 0.7247268 0.6870650 0.6171406 0.6136393 0.5750119 0.5790849 0.5709284
## Cluster 2 0.6721144 0.6720587 0.5903138 0.6384252 0.7047331 0.7136950 0.6791730
## Cluster 3 0.6381631 0.6183475 0.6228979 0.6195532 0.6354426 0.6785262 0.6413943
## Cluster 4 0.5338917 0.5080361 0.5211625 0.5285054 0.4808339 0.4445343 0.4233105
## Cluster 5 0.4601552 0.5047069 0.4765690 0.5057629 0.5817457 0.6187716 0.6738664
##
                 16079
                           16080
                                     16081
                                               16082
                                                          16083
                                                                    16084
                                                                              16085
## Cluster 1 0.4843541 0.3901565 0.3118475 0.2435942 0.1949536 0.1826897 0.1698210
## Cluster 2 0.5792463 0.4685484 0.3280792 0.2815220 0.2159238 0.1979883 0.1767214
## Cluster 3 0.6016227 0.5613801 0.4651475 0.3761220 0.3169461 0.2880270 0.2481461
## Cluster 4 0.3704224 0.3101227 0.2757942 0.2526137 0.2242960 0.2066715 0.2111408
## Cluster 5 0.7659914 0.6694698 0.6165517 0.5098621 0.4085819 0.3564440 0.3165517
                                     16088
                 16086
                                                          16090
                           16087
                                               16089
                                                                    16091
## Cluster 1 0.1628236 0.1596340 0.1556963 0.1547944 0.1669363 0.1642666 0.1759814
## Cluster 2 0.1673842 0.1571554 0.1476569 0.1491877 0.1508240 0.1720000 0.1837977
## Cluster 3 0.2309163 0.2135759 0.2042723 0.1991418 0.1942113 0.1962837 0.2271745
## Cluster 4 0.1952816 0.2017329 0.1977473 0.2082166 0.2075271 0.2091119 0.2848520
## Cluster 5 0.2634009 0.2453362 0.2490733 0.2425733 0.2434267 0.2623966 0.2306164
                 16093
                           16094
                                     16095
                                               16096
                                                          16097
                                                                    16098
                                                                              16099
## Cluster 1 0.1854695 0.2318103 0.3232109 0.4538780 0.5359867 0.4974629 0.4846698
## Cluster 2 0.2471584 0.3267977 0.3978387 0.4433930 0.3921173 0.3194692 0.3086012
## Cluster 3 0.2596113 0.2681617 0.2923248 0.3449106 0.3874809 0.4425986 0.4147816
## Cluster 4 0.4192166 0.5591841 0.6984657 0.7326715 0.7034296 0.6081625 0.4402274
## Cluster 5 0.2363664 0.2541164 0.3024095 0.3561078 0.4133103 0.3955560 0.3404871
##
                 16100
                           16101
                                     16102
                                               16103
                                                          16104
                                                                    16105
                                                                              16106
## Cluster 1 0.4880610 0.4849337 0.4640875 0.4464841 0.4170796 0.4548767 0.5117679
## Cluster 2 0.2793607 0.2614839 0.2645161 0.2598680 0.2692669 0.2380880 0.2414457
## Cluster 3 0.4208426 0.4457631 0.4662936 0.4700950 0.4734752 0.4997801 0.5408539
## Cluster 4 0.4339422 0.4082708 0.3869711 0.3942491 0.3648953 0.3999964 0.4090758
## Cluster 5 0.3783190 0.3668707 0.3554957 0.3532198 0.3215733 0.3122586 0.3378017
##
                 16107
                           16108
                                     16109
                                               16110
                                                          16111
                                                                    16112
                                                                              16113
```

```
## Cluster 1 0.4932772 0.4628647 0.4602891 0.4688263 0.4543780 0.4623316 0.5498873
## Cluster 2 0.2554897 0.2606188 0.2806305 0.2936862 0.3260088 0.3030293 0.3013343
## Cluster 3 0.5648837 0.5524809 0.5374383 0.5573872 0.5879901 0.6315348 0.6717574
## Cluster 4 0.4217762 0.4164116 0.4349567 0.3628989 0.4055090 0.4696029 0.6041552
## Cluster 5 0.3177112 0.4084353 0.3288190 0.3020776 0.3017112 0.3861250 0.3748922
                                                          16118
##
                 16114
                           16115
                                     16116
                                               16117
                                                                    16119
## Cluster 1 0.6697401 0.7837958 0.9031207 0.8288103 0.6952374 0.7384523 0.6283210
## Cluster 2 0.3357595 0.3936481 0.4281466 0.6073079 0.6150968 0.6863431 0.6787478
## Cluster 3 0.6947546 0.6647234 0.7018738 0.6945418 0.6602184 0.6489206 0.6628950
## Cluster 4 0.6507509 0.6579964 0.6654946 0.6222094 0.5498014 0.5990830 0.5872599
  Cluster 5 0.3870129 0.4289828 0.4415474 0.4389483 0.4599095 0.4706983 0.4567845
                 16121
                           16122
                                     16123
                                               16124
                                                          16125
                                                                    16126
                                                                              16127
## Cluster 1 0.6813064 0.6385053 0.6148979 0.6128064 0.6148448 0.5842414 0.4794231
## Cluster 2 0.6627067 0.6140352 0.6386129 0.6753343 0.6824809 0.6748592 0.5657243
## Cluster 3 0.6485972 0.5959617 0.6051035 0.6406142 0.7001121 0.6475773 0.6437943
## Cluster 4 0.5773141 0.4932671 0.4674874 0.4544007 0.5244152 0.4935126 0.4318556
## Cluster 5 0.4543966 0.5092543 0.5033017 0.5702112 0.6338922 0.6862974 0.7757241
##
                 16128
                           16129
                                     16130
                                               16131
                                                          16132
                                                                    16133
                                                                              16134
## Cluster 1 0.3832440 0.2828714 0.2349828 0.2075159 0.1793276 0.1705027 0.1612679
## Cluster 2 0.4348504 0.3465308 0.2369413 0.1853196 0.1751320 0.1649267 0.1589413
## Cluster 3 0.5844993 0.4854950 0.3955234 0.2975603 0.2532440 0.2291645 0.2198326
## Cluster 4 0.3714079 0.2862455 0.2773394 0.2221913 0.2222816 0.2085957 0.2012924
## Cluster 5 0.7656164 0.6251466 0.4818491 0.4021207 0.3409009 0.3093319 0.2790733
                 16135
                           16136
                                     16137
                                               16138
                                                          16139
                                                                    16140
## Cluster 1 0.1547891 0.1562586 0.1572480 0.1624934 0.1585239 0.1755782 0.2103236
## Cluster 2 0.1486774 0.1501994 0.1487390 0.1532639 0.1652053 0.1725601 0.2729677
## Cluster 3 0.2061972 0.1966993 0.1966270 0.1988539 0.1963617 0.2402979 0.2581305
## Cluster 4 0.2150650 0.2133646 0.2198303 0.2168087 0.2135162 0.3415812 0.4308087
## Cluster 5 0.2821034 0.2594310 0.2915862 0.2520000 0.2530345 0.2494914 0.2448147
##
                 16142
                           16143
                                     16144
                                               16145
                                                          16146
                                                                    16147
                                                                              16148
## Cluster 1 0.2389987 0.3547533 0.4926127 0.5297997 0.5474854 0.4976459 0.4967958
## Cluster 2 0.3390293 0.4683284 0.4017243 0.4296188 0.3096481 0.2909971 0.2765660
## Cluster 3 0.2690057 0.3081504 0.3566128 0.3978496 0.4459986 0.4157248 0.4455333
## Cluster 4 0.6440433 0.8022563 0.8045812 0.6819531 0.5012563 0.4069747 0.4212996
## Cluster 5 0.2567759 0.3520474 0.3400905 0.4239957 0.4081164 0.3506638 0.3043534
                                                          16153
                 16149
                           16150
                                     16151
                                               16152
                                                                    16154
                                                                              16155
## Cluster 1 0.4703462 0.4608050 0.4381830 0.4387653 0.4373103 0.4553674 0.4775756
## Cluster 2 0.2373636 0.2447654 0.2470411 0.2154399 0.2315836 0.2351760 0.2471466
## Cluster 3 0.4330000 0.4032043 0.4314255 0.4606823 0.5092312 0.5248610 0.5678255
## Cluster 4 0.3911155 0.3767365 0.3683502 0.3333466 0.3608448 0.3711588 0.3561227
## Cluster 5 0.3475129 0.3261767 0.3233578 0.2992672 0.3101422 0.3913621 0.3131595
                           16157
                                     16158
                                                          16160
                 16156
                                               16159
                                                                    16161
                                                                              16162
## Cluster 1 0.3979005 0.4244509 0.3939403 0.4176976 0.4744125 0.4805398 0.5967321
## Cluster 2 0.2280616 0.2707683 0.2307947 0.2890000 0.2901848 0.2549971 0.2928416
## Cluster 3 0.5051560 0.4689291 0.5499546 0.5553986 0.5747461 0.6100156 0.6833972
## Cluster 4 0.3428303 0.3513935 0.3664224 0.4046029 0.4171516 0.5122058 0.5820505
## Cluster 5 0.3198534 0.3157543 0.3151078 0.3032371 0.3467500 0.3726207 0.3397629
##
                 16163
                           16164
                                     16165
                                               16166
                                                          16167
                                                                    16168
                                                                              16169
## Cluster 1 0.7572851 0.8643050 0.7793899 0.6894191 0.6736751 0.6450451 0.6028329
## Cluster 2 0.3747273 0.4661906 0.5395513 0.5770616 0.5731584 0.5935865 0.5801232
## Cluster 3 0.6684170 0.6541915 0.6643546 0.6518496 0.6298965 0.6230695 0.6328355
## Cluster 4 0.6417870 0.6348087 0.5975776 0.5217870 0.5069856 0.4860794 0.5494621
## Cluster 5 0.4145776 0.4531552 0.4713276 0.4773922 0.5241121 0.4213147 0.4678578
##
                 16170
                           16171
                                     16172
                                               16173
                                                          16174
                                                                    16175
                                                                              16176
```

```
## Cluster 1 0.6489748 0.6587772 0.6349642 0.6397812 0.5944576 0.5309151 0.4482851
## Cluster 2 0.5973695 0.6484545 0.6490528 0.6900997 0.7103196 0.6473930 0.4844516
## Cluster 3 0.6157177 0.6144950 0.6839858 0.6607702 0.7211021 0.6539801 0.5993816
## Cluster 4 0.5704838 0.5209350 0.5250505 0.4951588 0.4699567 0.4319206 0.3695271
## Cluster 5 0.4676078 0.4640905 0.4810733 0.5336034 0.6009310 0.6608147 0.6439440
                                     16179
                                                         16181
                                                                    16182
                 16177
                           16178
                                               16180
## Cluster 1 0.3244814 0.2532480 0.2019655 0.1800464 0.1641340 0.1629072 0.1565292
## Cluster 2 0.3513167 0.2507742 0.1989326 0.1912082 0.1559120 0.1543695 0.1558915
## Cluster 3 0.4889305 0.3851787 0.3320809 0.2769631 0.2364794 0.2176794 0.2064128
## Cluster 4 0.3284224 0.2707834 0.2432238 0.2271661 0.2190505 0.2281877 0.2273574
  Cluster 5 0.6425216 0.5035905 0.4168491 0.3648362 0.2952716 0.2739526 0.2420172
                 16184
                           16185
                                     16186
                                               16187
                                                         16188
                                                                    16189
                                                                              16190
## Cluster 1 0.1615053 0.1600597 0.1584218 0.1663302 0.1638568 0.1885597 0.2297546
## Cluster 2 0.1532434 0.1470117 0.1625924 0.1751906 0.2001965 0.2458065 0.3268915
## Cluster 3 0.2064071 0.2032411 0.1942950 0.2072355 0.2161333 0.2452922 0.2867362
## Cluster 4 0.1974224 0.2048375 0.2147545 0.2268339 0.3291877 0.4286606 0.5992310
## Cluster 5 0.2399526 0.2789009 0.2400517 0.2373836 0.2377672 0.2361121 0.2864655
##
                 16191
                           16192
                                     16193
                                               16194
                                                         16195
                                                                    16196
                                                                              16197
## Cluster 1 0.3553714 0.5259125 0.5814443 0.5465464 0.5000106 0.4928355 0.4885159
## Cluster 2 0.4504985 0.4438065 0.4155396 0.3214604 0.2772698 0.2950469 0.2554252
## Cluster 3 0.3219915 0.3960284 0.4357546 0.4430411 0.4647433 0.4608355 0.4504199
## Cluster 4 0.8088845 0.8039495 0.6104657 0.5087690 0.3780505 0.4111516 0.3792635
## Cluster 5 0.3257845 0.3699871 0.3871810 0.3726681 0.3754698 0.3431983 0.3178233
                 16198
                           16199
                                     16200
                                               16201
                                                         16202
                                                                    16203
## Cluster 1 0.4511936 0.4540889 0.4451180 0.4389987 0.4444218 0.4787520 0.4561313
## Cluster 2 0.2311848 0.2245191 0.2313636 0.2552757 0.2459501 0.2822434 0.2487185
## Cluster 3 0.4614284 0.4675972 0.4461716 0.4812028 0.4700738 0.4995135 0.4819560
## Cluster 4 0.4100866 0.3995379 0.3982671 0.3727509 0.3716787 0.3833105 0.3735812
## Cluster 5 0.3426897 0.3479138 0.3356767 0.3505517 0.3861940 0.4159267 0.3946509
                 16205
                           16206
                                     16207
                                               16208
                                                         16209
                                                                    16210
                                                                              16211
## Cluster 1 0.4168621 0.4505491 0.4304483 0.4525411 0.4966472 0.5731592 0.7322573
## Cluster 2 0.2305396 0.2484985 0.2572082 0.2588622 0.2742405 0.3187742 0.3763519
## Cluster 3 0.5146596 0.4957433 0.5708312 0.6140695 0.6126000 0.6337489 0.6393603
## Cluster 4 0.3707690 0.3506931 0.4080325 0.4668014 0.4958556 0.5840542 0.5993791
## Cluster 5 0.3135172 0.2924397 0.3797629 0.3782500 0.3866983 0.4203707 0.4155302
                 16212
                           16213
                                     16214
                                               16215
                                                         16216
                                                                    16217
## Cluster 1 0.8422772 0.8394271 0.7239363 0.7413846 0.6875013 0.6461008 0.6132427
## Cluster 2 0.4166950 0.5562493 0.5897243 0.6646276 0.6538182 0.6712698 0.6466833
## Cluster 3 0.6509773 0.6480610 0.5966667 0.5987957 0.5854298 0.6347787 0.6099433
## Cluster 4 0.5924693 0.5648989 0.5480866 0.5632888 0.5215560 0.4651986 0.4383105
## Cluster 5 0.5247284 0.5331422 0.4746767 0.4919784 0.4706509 0.4396897 0.4316336
                 16219
                           16220
                                     16221
                                               16222
                                                         16223
                                                                    16224
                                                                              16225
## Cluster 1 0.6173873 0.5975119 0.6178382 0.6065013 0.5030889 0.4079085 0.3082401
## Cluster 2 0.6417273 0.6173666 0.6275015 0.6317947 0.5852346 0.4298182 0.3162375
## Cluster 3 0.6522227 0.7043518 0.6870270 0.6820624 0.6719730 0.5871007 0.4565759
## Cluster 4 0.4440505 0.4238412 0.4642455 0.4413032 0.4356318 0.3296534 0.2911480
## Cluster 5 0.4753060 0.5129440 0.5698405 0.6346466 0.7151595 0.6205690 0.5530043
##
                 16226
                           16227
                                     16228
                                               16229
                                                          16230
                                                                    16231
                                                                              16232
## Cluster 1 0.2384629 0.2045597 0.1924629 0.1730225 0.1680650 0.1639045 0.1645915
## Cluster 2 0.2525894 0.2073724 0.1823988 0.1739941 0.1610381 0.1575718 0.1543578
## Cluster 3 0.3758284 0.3135149 0.2582312 0.2389191 0.2267106 0.2125475 0.2056113
## Cluster 4 0.2505054 0.2351661 0.2100000 0.2101227 0.2060686 0.2014874 0.1953321
## Cluster 5 0.5126767 0.3847716 0.2968534 0.2865819 0.2569655 0.2537716 0.2577371
##
                 16233
                           16234
                                     16235
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                                                          16237
                                                                    16238
                                                                              16239
```

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## Cluster 1 0.1729019 0.1699191 0.1646923 0.1771406 0.2015610 0.2379111 0.3362401
## Cluster 2 0.1596276 0.1651056 0.1979355 0.2112639 0.2530938 0.3297273 0.4170117
## Cluster 3 0.1988043 0.2038482 0.2040071 0.2282879 0.2434894 0.2712454 0.3071333
## Cluster 4 0.2060072 0.2230217 0.2274260 0.3226029 0.4134585 0.6202202 0.7614585
## Cluster 5 0.2490603 0.2414310 0.2260000 0.2219526 0.2361638 0.2467629 0.2546336
                 16240
                           16241
                                               16243
                                                          16244
##
                                     16242
                                                                    16245
## Cluster 1 0.5043024 0.5257958 0.4962480 0.5010690 0.5089032 0.4702971 0.4547679
## Cluster 2 0.4433636 0.4110088 0.3717067 0.3112581 0.2936833 0.2107566 0.2518944
## Cluster 3 0.3690553 0.4181191 0.4462908 0.4495972 0.4286681 0.4128766 0.4221773
## Cluster 4 0.7196823 0.6290758 0.4680469 0.4219170 0.3814079 0.3870144 0.4152238
  Cluster 5 0.3646983 0.3861810 0.3461164 0.3428707 0.3155086 0.3190905 0.3375991
                           16248
                                     16249
                 16247
                                               16250
                                                          16251
                                                                    16252
                                                                              16253
## Cluster 1 0.4640637 0.4323037 0.4369072 0.4829377 0.4819615 0.4190703 0.4080690
## Cluster 2 0.2623754 0.2536276 0.2444164 0.2494663 0.2581965 0.2612053 0.2639824
## Cluster 3 0.4673745 0.4657050 0.4904369 0.5336057 0.5768809 0.5277660 0.4750738
## Cluster 4 0.3955343 0.4177148 0.3844332 0.3392419 0.3865379 0.3624693 0.3564765
## Cluster 5 0.3423922 0.3401552 0.3647069 0.3645129 0.3286207 0.3294397 0.2960862
##
                 16254
                           16255
                                     16256
                                               16257
                                                          16258
                                                                    16259
                                                                              16260
## Cluster 1 0.4269934 0.4526963 0.4736220 0.5370756 0.5902626 0.7192931 0.7863276
## Cluster 2 0.2393548 0.2482639 0.2237859 0.2537683 0.3053314 0.3267243 0.4326716
## Cluster 3 0.4854170 0.5125716 0.5404128 0.6199787 0.6384638 0.6399702 0.6670695
## Cluster 4 0.3743394 0.4152383 0.4298195 0.5441552 0.5824693 0.6327978 0.6087617
## Cluster 5 0.2882888 0.3347672 0.3224267 0.3828578 0.3460431 0.3947543 0.4447543
                 16261
                           16262
                                     16263
                                               16264
                                                          16265
                                                                    16266
## Cluster 1 0.7556751 0.6960729 0.6601432 0.6364615 0.6143767 0.5699416 0.5633501
## Cluster 2 0.5352757 0.5330088 0.5535543 0.5544340 0.6368475 0.6084076 0.5846862
## Cluster 3 0.6539745 0.6200695 0.6044454 0.5663234 0.5864397 0.6263362 0.6003589
## Cluster 4 0.5840217 0.5332708 0.4887617 0.5075776 0.4778231 0.4626787 0.4424549
## Cluster 5 0.4147284 0.4171207 0.4657026 0.4645129 0.4147241 0.4139052 0.4662759
                 16268
                           16269
                                     16270
                                               16271
                                                          16272
                                                                    16273
                                                                              16274
## Cluster 1 0.5701512 0.5979775 0.5902122 0.5271950 0.4403926 0.3410477 0.2652308
## Cluster 2 0.6461935 0.7045220 0.6597126 0.6029472 0.4815073 0.3462669 0.2704340
## Cluster 3 0.6385915 0.6510837 0.6673830 0.6546922 0.5917447 0.4938723 0.3867277
## Cluster 4 0.4695379 0.4896390 0.4699422 0.4087798 0.3535343 0.3239458 0.2831661
## Cluster 5 0.5391034 0.5459181 0.6802112 0.7402543 0.7105345 0.6468147 0.5058966
                                               16278
                                                          16279
                 16275
                           16276
                                     16277
                                                                    16280
                                                                              16281
## Cluster 1 0.2146194 0.1978130 0.1811220 0.1862149 0.1763554 0.1698727 0.1694801
## Cluster 2 0.2312874 0.2068680 0.1764340 0.1747859 0.1655425 0.1565748 0.1511437
## Cluster 3 0.3309631 0.2871660 0.2529163 0.2321972 0.2113730 0.2148908 0.2021504
## Cluster 4 0.2458267 0.2387798 0.2102816 0.2025596 0.2102383 0.2086534 0.2106931
## Cluster 5 0.4548578 0.3502414 0.3069526 0.2888190 0.2569612 0.2427931 0.2685302
                 16282
                           16283
                                     16284
                                               16285
                                                          16286
                                                                    16287
                                                                              16288
## Cluster 1 0.1685822 0.1799668 0.1812851 0.1982294 0.2329735 0.3534072 0.5072387
## Cluster 2 0.1591965 0.1682581 0.1980528 0.2602639 0.3431466 0.4296041 0.3872874
## Cluster 3 0.1997475 0.2167106 0.2375333 0.2585404 0.2836454 0.3193149 0.3395404
## Cluster 4 0.2354116 0.2654152 0.3544549 0.4068014 0.5779747 0.7429206 0.7176029
## Cluster 5 0.2565690 0.2568276 0.2141509 0.2185905 0.2457845 0.3128664 0.3541422
                           16290
                                                          16293
##
                 16289
                                     16291
                                               16292
                                                                    16294
                                                                              16295
## Cluster 1 0.5556737 0.5337798 0.5269668 0.5064138 0.4867891 0.4628170 0.4375305
## Cluster 2 0.4248739 0.3543460 0.2844868 0.3062111 0.2905367 0.2868827 0.2759120
## Cluster 3 0.4008993 0.4445801 0.4365177 0.4387035 0.4241376 0.4631121 0.4555589
## Cluster 4 0.7303249 0.5759567 0.5260433 0.4133502 0.3968917 0.4028375 0.3839711
## Cluster 5 0.4265776 0.4002931 0.3395345 0.3224741 0.3137543 0.3178836 0.3544828
##
                 16296
                           16297
                                     16298
                                               16299
                                                          16300
                                                                    16301
                                                                              16302
```

```
## Cluster 1 0.4455093 0.4666247 0.4819788 0.4559867 0.4499231 0.4223700 0.4599098
## Cluster 2 0.2667801 0.2855982 0.2847771 0.2761320 0.2754194 0.2838504 0.2855132
## Cluster 3 0.4606794 0.5250950 0.4895957 0.5309730 0.5578823 0.5480028 0.5187816
## Cluster 4 0.3932816 0.3737942 0.4125993 0.4206137 0.3664729 0.3560830 0.4179134
## Cluster 5 0.3312931 0.3594828 0.3674612 0.3444828 0.3460733 0.3341121 0.3262586
                 16303
                           16304
                                     16305
                                               16306
                                                          16307
                                                                    16308
##
## Cluster 1 0.4675252 0.4667984 0.4897918 0.5586804 0.6793674 0.7603528 0.7414324
## Cluster 2 0.2740968 0.2806569 0.3388886 0.3341378 0.3776950 0.4700205 0.4703871
## Cluster 3 0.5306270 0.5394184 0.5795461 0.5747872 0.6570525 0.6514567 0.7013220
## Cluster 4 0.4057184 0.4871047 0.5656354 0.5897870 0.5866787 0.6014477 0.5185993
  Cluster 5 0.3029483 0.3345948 0.3741293 0.3426250 0.3707026 0.4339181 0.4601940
                                     16312
                 16310
                           16311
                                               16313
                                                          16314
                                                                    16315
## Cluster 1 0.7243647 0.7047454 0.6626101 0.5997639 0.5973594 0.5576976 0.5360915
## Cluster 2 0.5207478 0.6450557 0.6144370 0.5582610 0.5420411 0.4919355 0.5086452
## Cluster 3 0.6481248 0.6540950 0.6139035 0.5869050 0.5817305 0.6095035 0.5947021
## Cluster 4 0.4826101 0.5266245 0.5492960 0.5132635 0.4719278 0.4294513 0.4206065
## Cluster 5 0.4989526 0.5209741 0.4971250 0.4587069 0.4865819 0.4789353 0.5139052
##
                 16317
                           16318
                                     16319
                                               16320
                                                          16321
                                                                    16322
                                                                              16323
## Cluster 1 0.5572334 0.5634615 0.5244377 0.4594058 0.3767944 0.2850716 0.2441883
## Cluster 2 0.6064457 0.5712375 0.5398798 0.4552669 0.3503959 0.2807537 0.2333959
## Cluster 3 0.6204454 0.6385787 0.6440567 0.5709050 0.5067418 0.4184255 0.3632028
## Cluster 4 0.4605271 0.4355560 0.4134585 0.3732527 0.3389783 0.2819783 0.2740505
## Cluster 5 0.5611767 0.6215647 0.6627672 0.6958966 0.6389052 0.5367802 0.4347672
                 16324
                           16325
                                     16326
                                               16327
                                                          16328
                                                                    16329
## Cluster 1 0.2044775 0.1885981 0.1834019 0.1692294 0.1683435 0.1692374 0.1681180
## Cluster 2 0.2118358 0.1935777 0.1779062 0.1621290 0.1574428 0.1518504 0.1485308
## Cluster 3 0.3239730 0.2770638 0.2406723 0.2295872 0.2228043 0.2024738 0.1979220
## Cluster 4 0.2399495 0.2297870 0.2069783 0.2096498 0.2137690 0.2225560 0.2401155
## Cluster 5 0.3850388 0.3257371 0.3054095 0.2802845 0.2668664 0.2802974 0.2509914
##
                 16331
                           16332
                                     16333
                                               16334
                                                          16335
                                                                    16336
                                                                              16337
## Cluster 1 0.1597361 0.1713156 0.1770398 0.2046910 0.2450305 0.2812387 0.4220212
## Cluster 2 0.1700352 0.1734282 0.2017390 0.2534370 0.2099267 0.2274047 0.3014311
## Cluster 3 0.1976170 0.2146922 0.2324326 0.2387489 0.2443872 0.2679447 0.3097773
## Cluster 4 0.2523863 0.2750181 0.3586137 0.3691047 0.5159097 0.5518953 0.5894477
## Cluster 5 0.2430948 0.2085431 0.2230603 0.2392284 0.2464052 0.2743534 0.3160905
                                     16340
                                                          16342
                 16338
                           16339
                                               16341
                                                                    16343
## Cluster 1 0.4921220 0.5547241 0.6544947 0.6804005 0.6144523 0.6242069 0.6039655
## Cluster 2 0.4009971 0.3835660 0.3905279 0.4236598 0.3919619 0.4015367 0.4338651
## Cluster 3 0.3708270 0.4220993 0.4957319 0.5417206 0.5600624 0.5869135 0.5985489
## Cluster 4 0.5252058 0.6193718 0.5694224 0.4869242 0.4789350 0.5513971 0.5042058
## Cluster 5 0.3588448 0.4058017 0.4102155 0.4338448 0.4896466 0.4370905 0.4658362
                 16345
                           16346
                                     16347
                                               16348
                                                          16349
                                                                    16350
                                                                              16351
## Cluster 1 0.5662666 0.5763488 0.6064363 0.5165584 0.4885119 0.4920769 0.4648886
## Cluster 2 0.3958065 0.4231642 0.4180792 0.4123079 0.3972991 0.3465718 0.3764663
## Cluster 3 0.6535560 0.6162426 0.6541759 0.5910908 0.5517106 0.5578085 0.5615163
## Cluster 4 0.5243213 0.4425668 0.4030181 0.4239242 0.4358845 0.3926245 0.4351625
## Cluster 5 0.4866164 0.5139655 0.4349871 0.4315690 0.4393147 0.4482112 0.4160517
                           16353
                                                          16356
##
                 16352
                                     16354
                                               16355
                                                                    16357
                                                                              16358
## Cluster 1 0.4750332 0.4715093 0.5397958 0.6629907 0.7172082 0.7626207 0.7232719
## Cluster 2 0.3642346 0.3758123 0.3999384 0.4276628 0.4876070 0.5401144 0.5494780
## Cluster 3 0.5459816 0.5198170 0.5469007 0.5556142 0.6291915 0.6082894 0.5926312
## Cluster 4 0.4237870 0.4785668 0.5471227 0.5594513 0.5553285 0.5619783 0.4945993
## Cluster 5 0.4143319 0.4169397 0.4314224 0.4300991 0.3881207 0.4673362 0.4796250
##
                 16359
                           16360
                                     16361
                                               16362
                                                          16363
                                                                    16364
                                                                              16365
```

```
## Cluster 1 0.6643435 0.5787586 0.5787149 0.5603382 0.5352533 0.5383793 0.5232944
## Cluster 2 0.6362610 0.5631202 0.5397243 0.5377155 0.4829531 0.4830029 0.5112903
## Cluster 3 0.6368326 0.5975418 0.5843078 0.5951773 0.6188170 0.5741730 0.5528028
## Cluster 4 0.5285632 0.4696679 0.4510289 0.4246101 0.4299964 0.4025235 0.3977617
## Cluster 5 0.5415948 0.5010517 0.4607155 0.4520948 0.4832328 0.5426164 0.5031509
                 16366
                           16367
                                     16368
                                                          16370
##
                                               16369
                                                                    16371
## Cluster 1 0.5288700 0.4730544 0.4339045 0.3539934 0.3043740 0.2548647 0.2279523
## Cluster 2 0.5522786 0.5013314 0.4467243 0.3580440 0.3160352 0.2530792 0.2131965
## Cluster 3 0.5696142 0.5585163 0.5411248 0.4776879 0.4210043 0.3564284 0.3106752
## Cluster 4 0.3858267 0.3381625 0.3326462 0.3002419 0.2700722 0.2542022 0.2299783
  Cluster 5 0.5654957 0.6243103 0.5851509 0.5867328 0.4989440 0.4709784 0.3993578
                           16374
                                     16375
                 16373
                                               16376
                                                          16377
                                                                    16378
                                                                              16379
## Cluster 1 0.2020000 0.1768714 0.1753674 0.1711618 0.1613329 0.1586976 0.1646618
## Cluster 2 0.1869472 0.1807889 0.1696950 0.1712669 0.1604047 0.1592287 0.1698152
## Cluster 3 0.2847560 0.2426695 0.2421135 0.2347674 0.2157972 0.2028468 0.2051277
## Cluster 4 0.2427329 0.2365307 0.2217220 0.2191841 0.2326931 0.2428159 0.2649711
## Cluster 5 0.3590302 0.3188621 0.3083190 0.2551810 0.2631164 0.2469569 0.2397371
##
                 16380
                           16381
                                     16382
                                               16383
                                                          16384
                                                                    16385
                                                                              16386
## Cluster 1 0.1674072 0.1854098 0.1913422 0.2392546 0.2784111 0.3399934 0.4159801
## Cluster 2 0.1667478 0.1861466 0.2043109 0.2082933 0.2116921 0.2531144 0.3088035
## Cluster 3 0.2184794 0.2127404 0.2260028 0.2351844 0.2398426 0.2994993 0.3307745
## Cluster 4 0.2939097 0.3543032 0.3935379 0.4880939 0.4661733 0.4548087 0.5306498
## Cluster 5 0.2171638 0.2235431 0.2435905 0.2331207 0.2525216 0.2580129 0.2862845
                 16387
                           16388
                                     16389
                                               16390
                                                          16391
                                                                    16392
## Cluster 1 0.5341101 0.5765225 0.6224324 0.6621950 0.6678687 0.6584138 0.6445398
## Cluster 2 0.3559003 0.4036276 0.4360674 0.4738827 0.5539677 0.4916950 0.4343519
## Cluster 3 0.4038284 0.5070667 0.5777404 0.6157319 0.6245106 0.6612638 0.6606000
## Cluster 4 0.5151155 0.4862491 0.5749495 0.5594946 0.5863177 0.6293141 0.5916426
## Cluster 5 0.3454741 0.3624957 0.4047931 0.5128448 0.4741207 0.4809095 0.4628190
##
                 16394
                           16395
                                     16396
                                               16397
                                                          16398
                                                                    16399
                                                                              16400
## Cluster 1 0.6754748 0.6412825 0.5909058 0.5203422 0.4769841 0.4705345 0.4825305
## Cluster 2 0.4547507 0.4721935 0.4629912 0.3475543 0.3693431 0.3284018 0.3525279
## Cluster 3 0.7088965 0.6917546 0.6382454 0.6510496 0.6059915 0.5568156 0.5329177
## Cluster 4 0.5621083 0.5425668 0.4639242 0.4285487 0.4100939 0.4422238 0.4353610
  Cluster 5 0.4924784 0.4471897 0.4156595 0.4230302 0.3645776 0.4149310 0.4398017
                           16402
                                               16404
                                                          16405
                 16401
                                     16403
                                                                    16406
                                                                              16407
## Cluster 1 0.4831525 0.4687480 0.5830875 0.6012175 0.5928621 0.5882401 0.6129138
## Cluster 2 0.3664282 0.3692522 0.3599795 0.4262287 0.4993695 0.5680176 0.5541613
## Cluster 3 0.5407163 0.5393617 0.5784014 0.5684766 0.5438213 0.5735872 0.5853035
## Cluster 4 0.4808087 0.5189061 0.5072671 0.4884116 0.4019783 0.4480433 0.4508159
## Cluster 5 0.4398103 0.4263060 0.4722500 0.4150819 0.4243879 0.4876509 0.4435991
                 16408
                           16409
                                     16410
                                               16411
                                                          16412
                                                                    16413
                                                                              16414
## Cluster 1 0.5629072 0.5747666 0.5809430 0.5559841 0.5421751 0.5435690 0.5449191
## Cluster 2 0.5223871 0.5591114 0.5593842 0.5763959 0.5810029 0.5899062 0.5737859
## Cluster 3 0.5621915 0.5772894 0.5480057 0.5673277 0.5491844 0.6115688 0.6069333
## Cluster 4 0.4243502 0.4575523 0.4591155 0.4740758 0.4234729 0.4328520 0.3944007
## Cluster 5 0.4083190 0.4133621 0.4471466 0.4833362 0.5099353 0.6069353 0.6519526
##
                 16415
                           16416
                                     16417
                                               16418
                                                          16419
                                                                    16420
                                                                              16421
## Cluster 1 0.4726578 0.4196061 0.3225570 0.2484204 0.2137029 0.1984019 0.1822997
## Cluster 2 0.5199765 0.4240938 0.3326510 0.2665279 0.2238504 0.1958211 0.1784311
## Cluster 3 0.6107447 0.5615220 0.4650894 0.3993603 0.3268142 0.2864298 0.2554014
## Cluster 4 0.3591372 0.3258917 0.3148484 0.2872527 0.2339856 0.2187076 0.2137329
## Cluster 5 0.6915560 0.7252414 0.5916853 0.5290517 0.4858233 0.4031078 0.3701164
##
                 16422
                           16423
                                     16424
                                               16425
                                                          16426
                                                                    16427
```

```
## Cluster 1 0.1722958 0.1652812 0.1642347 0.1676101 0.1649735 0.1686286 0.1782361
## Cluster 2 0.1545894 0.1540176 0.1480616 0.1499560 0.1455924 0.1603314 0.1882757
## Cluster 3 0.2275362 0.2160298 0.2110723 0.1982298 0.1982482 0.2007305 0.2224496
## Cluster 4 0.2023430 0.2018592 0.1939639 0.2123105 0.2319892 0.2537365 0.3117437
## Cluster 5 0.2861810 0.2513319 0.2380259 0.2778319 0.2520776 0.2339914 0.2290259
                 16429
                           16430
                                               16432
                                                          16433
##
                                     16431
                                                                    16434
## Cluster 1 0.2047255 0.2261472 0.3253674 0.4249416 0.4949576 0.5027281 0.5242653
## Cluster 2 0.2448123 0.3227742 0.3976129 0.3760117 0.3655513 0.3252698 0.2765220
## Cluster 3 0.2200766 0.2678908 0.2974780 0.3335163 0.4072170 0.4205404 0.4551603
## Cluster 4 0.3996859 0.5125451 0.6476318 0.6475921 0.6732996 0.5644693 0.4729531
  Cluster 5 0.2312586 0.2498621 0.2986940 0.3596897 0.3623060 0.3802241 0.3442241
                                     16438
                 16436
                           16437
                                               16439
                                                          16440
                                                                    16441
## Cluster 1 0.5161485 0.4829045 0.4505332 0.4690438 0.4355703 0.4306790 0.4658780
## Cluster 2 0.2552522 0.2605308 0.2467625 0.2515103 0.2639941 0.2742258 0.2797126
## Cluster 3 0.4316865 0.4347092 0.4798993 0.4861589 0.4796028 0.4791660 0.5357901
## Cluster 4 0.4149603 0.4153285 0.3831733 0.3544152 0.4026751 0.4070830 0.4086498
## Cluster 5 0.3737284 0.3100259 0.3122328 0.3467759 0.3374095 0.3582026 0.3818836
##
                 16443
                           16444
                                     16445
                                               16446
                                                          16447
                                                                    16448
                                                                              16449
## Cluster 1 0.4686273 0.4386273 0.4172785 0.4087958 0.3952440 0.4312732 0.5034072
## Cluster 2 0.3177155 0.2660850 0.2439765 0.2131026 0.2155543 0.2390293 0.2524164
## Cluster 3 0.4810411 0.4953589 0.4939333 0.4817149 0.4986922 0.5372695 0.5816411
## Cluster 4 0.4132383 0.3848917 0.3837220 0.4268736 0.4564729 0.4301119 0.4937148
## Cluster 5 0.3933879 0.3525086 0.3614267 0.3153707 0.3182586 0.3502586 0.3538190
                 16450
                           16451
                                     16452
                                               16453
                                                          16454
                                                                    16455
## Cluster 1 0.6164867 0.7747294 0.8667971 0.7668422 0.7096154 0.6858223 0.6219363
## Cluster 2 0.2873959 0.3651730 0.4437185 0.5755953 0.5455425 0.6328504 0.6896246
## Cluster 3 0.6299915 0.6239957 0.6663035 0.6135248 0.6215149 0.6387603 0.6198908
## Cluster 4 0.5381336 0.6096282 0.6047942 0.6163321 0.5839458 0.5687040 0.5328736
## Cluster 5 0.3482155 0.4068664 0.4815216 0.5049353 0.4526034 0.5168103 0.5111422
##
                 16457
                           16458
                                     16459
                                               16460
                                                          16461
                                                                    16462
                                                                              16463
## Cluster 1 0.6286472 0.6069324 0.5776844 0.5832984 0.5922082 0.5541353 0.5320809
## Cluster 2 0.6260088 0.5659677 0.6323548 0.5963754 0.6281466 0.6031935 0.5625455
## Cluster 3 0.6008979 0.5852695 0.5690213 0.6341858 0.6613177 0.6681121 0.6688610
## Cluster 4 0.4948159 0.4147653 0.4374116 0.4474801 0.4767798 0.4551986 0.3782094
## Cluster 5 0.4968966 0.5085560 0.4622371 0.5174440 0.6057328 0.6185733 0.7508922
                                                          16468
                 16464
                           16465
                                     16466
                                               16467
                                                                    16469
## Cluster 1 0.4111684 0.3217294 0.2528462 0.2095597 0.1862149 0.1699748 0.1637997
## Cluster 2 0.4334164 0.3298856 0.2562522 0.2011789 0.1928182 0.1672727 0.1585191
## Cluster 3 0.5653929 0.4645773 0.3598638 0.3080610 0.2658539 0.2346057 0.2185106
## Cluster 4 0.3630794 0.2925487 0.2549639 0.2341264 0.2164621 0.1968809 0.2028484
## Cluster 5 0.7284655 0.6199526 0.5581379 0.4921983 0.3843879 0.3434310 0.3052457
                           16472
                                     16473
                                               16474
                                                          16475
                 16471
                                                                    16476
                                                                              16477
## Cluster 1 0.1692878 0.1661936 0.1627507 0.1640318 0.1674602 0.1861393 0.2035849
## Cluster 2 0.1497771 0.1450352 0.1519853 0.1599208 0.1670381 0.1956364 0.2552199
## Cluster 3 0.2056284 0.2128539 0.1992355 0.2004170 0.2035759 0.2251021 0.2539277
## Cluster 4 0.2056318 0.1920939 0.1992310 0.2174332 0.2584224 0.3492780 0.4602563
## Cluster 5 0.2792974 0.2663405 0.2719741 0.2295819 0.2475517 0.2212328 0.2287328
                                                          16482
##
                 16478
                           16479
                                     16480
                                               16481
                                                                    16483
                                                                              16484
## Cluster 1 0.2343687 0.3506897 0.4500504 0.5114947 0.4877944 0.5065690 0.4798952
## Cluster 2 0.3109589 0.3915777 0.3666012 0.3691994 0.3025513 0.2742698 0.2512874
## Cluster 3 0.2853901 0.3343121 0.3652539 0.4186723 0.4409943 0.4336936 0.4311489
## Cluster 4 0.5402166 0.7595054 0.7174982 0.6000758 0.5383935 0.3932852 0.3796137
## Cluster 5 0.2438103 0.3038922 0.3728017 0.3746466 0.3652845 0.3667241 0.4032845
##
                 16485
                           16486
                                     16487
                                               16488
                                                          16489
                                                                    16490
                                                                              16491
```

```
## Cluster 1 0.4689973 0.4472639 0.4385199 0.3936565 0.4298210 0.4596300 0.4694708
## Cluster 2 0.2409560 0.2217801 0.2109824 0.2134311 0.2243460 0.2392053 0.2461906
## Cluster 3 0.4372809 0.4315745 0.4697348 0.4557163 0.4693319 0.4863872 0.4946071
## Cluster 4 0.3966823 0.3524982 0.3797473 0.4223177 0.3942166 0.3542527 0.3652960
## Cluster 5 0.3164483 0.3662241 0.3600905 0.3463491 0.3479569 0.3676681 0.3646810
                 16492
                           16493
                                               16495
                                                          16496
##
                                     16494
                                                                    16497
## Cluster 1 0.4206393 0.4076658 0.3918435 0.4139019 0.4866512 0.5099377 0.6023621
## Cluster 2 0.2707654 0.2483314 0.2394076 0.2529677 0.2725953 0.2727009 0.3340792
## Cluster 3 0.4908071 0.4812652 0.4737943 0.5416596 0.5883163 0.6639929 0.7093787
## Cluster 4 0.3699675 0.3378087 0.3658267 0.4561733 0.4312166 0.5182780 0.5319314
  Cluster 5 0.3612155 0.3493966 0.3389181 0.3818405 0.3678621 0.3522328 0.3310905
                 16499
                           16500
                                     16501
                                               16502
                                                          16503
                                                                    16504
                                                                              16505
## Cluster 1 0.7353289 0.8591817 0.7949841 0.6814708 0.6493687 0.6730279 0.6745743
## Cluster 2 0.4103812 0.4703021 0.5796540 0.5761378 0.6477097 0.6866833 0.5827214
## Cluster 3 0.6992837 0.6859972 0.7010199 0.6669433 0.6298227 0.6289277 0.6058043
## Cluster 4 0.5866751 0.6641588 0.6399350 0.5677798 0.5572996 0.5086209 0.4605668
## Cluster 5 0.4230862 0.4838233 0.4294741 0.4659828 0.4811810 0.4668233 0.4585345
##
                 16506
                           16507
                                     16508
                                               16509
                                                          16510
                                                                    16511
                                                                              16512
## Cluster 1 0.6284496 0.5943156 0.5954297 0.6004894 0.5391512 0.4971645 0.4013422
## Cluster 2 0.5891877 0.6228123 0.5981789 0.6544545 0.6303842 0.5504751 0.4446393
## Cluster 3 0.6119064 0.6110738 0.6434837 0.6604723 0.6511319 0.6438809 0.5501645
## Cluster 4 0.4615560 0.5074404 0.5146318 0.4704296 0.4520794 0.4081083 0.3716426
## Cluster 5 0.5049957 0.4651897 0.5012112 0.5502931 0.6318534 0.6711293 0.6942974
                 16513
                           16514
                                     16515
                                               16516
                                                          16517
                                                                    16518
## Cluster 1 0.3114111 0.2408488 0.2073448 0.1778130 0.1761631 0.1646777 0.1642772
## Cluster 2 0.3167331 0.2395543 0.2051378 0.1861701 0.1625220 0.1634076 0.1539501
## Cluster 3 0.4673206 0.3802837 0.3032085 0.2673660 0.2343759 0.2241872 0.2149050
## Cluster 4 0.3184513 0.2761300 0.2341155 0.2014296 0.2122094 0.2038700 0.2153610
## Cluster 5 0.6770819 0.5445172 0.4557284 0.3905733 0.3401422 0.3038190 0.2850517
##
                 16520
                           16521
                                     16522
                                               16523
                                                          16524
                                                                    16525
                                                                              16526
## Cluster 1 0.1677135 0.1625186 0.1726326 0.1670849 0.1854469 0.2072586 0.2484576
## Cluster 2 0.1496510 0.1565836 0.1636598 0.1687507 0.2066452 0.2497947 0.3285337
## Cluster 3 0.1997759 0.1939972 0.1990908 0.2129021 0.2400014 0.2341929 0.2775759
## Cluster 4 0.2156534 0.2194801 0.2264585 0.2477040 0.3309964 0.4398159 0.5391877
## Cluster 5 0.2674267 0.2675776 0.2681164 0.2868147 0.2636810 0.2782802 0.3035733
                                     16529
                 16527
                           16528
                                               16530
                                                          16531
                                                                    16532
                                                                              16533
## Cluster 1 0.3403727 0.4463992 0.5163833 0.5074019 0.5015491 0.5038939 0.4482427
## Cluster 2 0.3819589 0.3790176 0.3730557 0.3408299 0.2943842 0.2594663 0.2650616
## Cluster 3 0.3293191 0.3588113 0.4224213 0.4070837 0.4093418 0.4151801 0.3939206
## Cluster 4 0.6833502 0.6533646 0.6211480 0.4760542 0.4204332 0.3642780 0.3541516
## Cluster 5 0.3149095 0.3615302 0.3985647 0.4426638 0.3995431 0.3796940 0.3548362
                 16534
                           16535
                                     16536
                                               16537
                                                          16538
                                                                    16539
                                                                              16540
## Cluster 1 0.4812003 0.4201286 0.4152958 0.4223992 0.4552865 0.4407149 0.4232653
## Cluster 2 0.2491202 0.2890088 0.2494370 0.2221818 0.2451114 0.2524135 0.2281584
## Cluster 3 0.4080965 0.4379858 0.4626014 0.5057702 0.5075702 0.5348539 0.5375972
## Cluster 4 0.3424838 0.3770903 0.3903466 0.4008556 0.3832310 0.3932238 0.4067509
## Cluster 5 0.4205474 0.3775345 0.3668966 0.3767974 0.3354784 0.3793879 0.3474052
##
                 16541
                           16542
                                     16543
                                               16544
                                                          16545
                                                                    16546
                                                                              16547
## Cluster 1 0.4321777 0.4163886 0.4691777 0.5041552 0.5273515 0.6159735 0.7593263
## Cluster 2 0.2323402 0.2635865 0.2820616 0.2785220 0.2987273 0.3164897 0.4082229
## Cluster 3 0.5650170 0.5587447 0.5473234 0.5979348 0.6066936 0.6643631 0.7069319
## Cluster 4 0.4061661 0.4253141 0.4519097 0.4362383 0.5144946 0.5876859 0.6282996
## Cluster 5 0.3233793 0.3201034 0.3534828 0.3978621 0.4212457 0.3842845 0.4480517
##
                 16548
                           16549
                                     16550
                                               16551
                                                          16552
                                                                    16553
                                                                              16554
```

```
## Cluster 1 0.8547905 0.7984483 0.6878263 0.6688740 0.6421340 0.6184469 0.5579576
## Cluster 2 0.5086657 0.5330440 0.6050792 0.6746246 0.6712551 0.6433460 0.6028974
## Cluster 3 0.7041277 0.6382723 0.6435787 0.6365716 0.6383546 0.6154156 0.6226610
## Cluster 4 0.6093682 0.5568195 0.5055668 0.4679350 0.4980614 0.5486462 0.4817004
## Cluster 5 0.4834267 0.4863578 0.5326078 0.5476207 0.4862629 0.4824871 0.4677155
                                                          16559
                                                                    16560
##
                 16555
                           16556
                                     16557
                                               16558
## Cluster 1 0.6108037 0.5984310 0.6028143 0.5576313 0.5018660 0.4028050 0.3234403
## Cluster 2 0.6005601 0.6144575 0.6450381 0.6134076 0.5364047 0.4446598 0.3719208
## Cluster 3 0.6440085 0.6608780 0.6691929 0.6437972 0.6230043 0.5487560 0.4542582
## Cluster 4 0.4444079 0.4740397 0.4384982 0.4280289 0.4010542 0.3862455 0.3350361
  Cluster 5 0.4657414 0.5141509 0.5367845 0.5743621 0.6377888 0.6328017 0.5900819
                           16563
                                     16564
                 16562
                                               16565
                                                          16566
                                                                    16567
                                                                              16568
## Cluster 1 0.2498674 0.2085610 0.1861127 0.1767122 0.1789960 0.1682586 0.1656472
## Cluster 2 0.2859501 0.2254399 0.1850029 0.1666393 0.1620176 0.1586393 0.1521056
## Cluster 3 0.4068794 0.3309730 0.2854057 0.2359560 0.2200355 0.2122284 0.2121660
## Cluster 4 0.2895090 0.2409964 0.2193610 0.2079711 0.2015993 0.2023682 0.1924982
## Cluster 5 0.4783664 0.3970086 0.3325345 0.2996293 0.2818405 0.2630647 0.2670129
##
                 16569
                           16570
                                     16571
                                               16572
                                                          16573
                                                                    16574
                                                                              16575
## Cluster 1 0.1616711 0.1618024 0.1642745 0.1874483 0.1982069 0.2476313 0.3306048
## Cluster 2 0.1578182 0.1584311 0.1751848 0.1803842 0.2496862 0.2923314 0.3817537
## Cluster 3 0.2035277 0.2036894 0.2120184 0.2239362 0.2401078 0.2591773 0.2970397
## Cluster 4 0.2157473 0.2184477 0.2400325 0.3473935 0.4233827 0.5575415 0.6872960
## Cluster 5 0.2735043 0.2528491 0.2381767 0.2145474 0.2552629 0.2772888 0.3178491
                 16576
                           16577
                                     16578
                                               16579
                                                          16580
                                                                    16581
## Cluster 1 0.4378263 0.4716273 0.4824894 0.5307029 0.5156857 0.4527586 0.4530875
## Cluster 2 0.4008504 0.4368182 0.3205220 0.2849501 0.2458680 0.2428827 0.2137566
## Cluster 3 0.3527943 0.3886950 0.4326681 0.4518610 0.4645433 0.4447887 0.4449645
## Cluster 4 0.7497184 0.6632996 0.5060686 0.4946679 0.4065018 0.3575235 0.3460036
## Cluster 5 0.3671336 0.4163966 0.3856897 0.3515216 0.3533362 0.3789741 0.3442888
##
                 16583
                           16584
                                     16585
                                               16586
                                                          16587
                                                                    16588
                                                                              16589
## Cluster 1 0.4155464 0.4182069 0.4284390 0.4760133 0.4466485 0.4542546 0.4453647
## Cluster 2 0.2389238 0.2360000 0.2266422 0.2296188 0.2385484 0.2577947 0.2495249
## Cluster 3 0.4451121 0.4746426 0.5113078 0.5256099 0.5289362 0.5071177 0.5048681
## Cluster 4 0.3562996 0.3245704 0.3863827 0.4229711 0.3883863 0.3734007 0.3544982
  Cluster 5 0.3345819 0.3366983 0.3461638 0.3274353 0.3594828 0.3733750 0.3437974
                 16590
                           16591
                                     16592
                                               16593
                                                          16594
                                                                    16595
                                                                              16596
## Cluster 1 0.4247347 0.4174005 0.4404019 0.4724496 0.5856512 0.6887202 0.7802480
## Cluster 2 0.2439120 0.2671026 0.2665396 0.2743255 0.3130440 0.3802053 0.4649736
## Cluster 3 0.5069021 0.5207106 0.5609418 0.5691660 0.6045773 0.6812270 0.6628057
## Cluster 4 0.3682022 0.3959747 0.4170072 0.4751841 0.5607437 0.6916570 0.6900325
## Cluster 5 0.3163362 0.3450733 0.3654052 0.4252974 0.3427716 0.3532543 0.4598879
                 16597
                           16598
                                     16599
                                               16600
                                                          16601
                                                                    16602
                                                                              16603
## Cluster 1 0.7313912 0.6327122 0.6490796 0.6149721 0.5879363 0.5735159 0.5934443
## Cluster 2 0.5445513 0.5599707 0.6933167 0.6380176 0.5398240 0.5531290 0.5477273
## Cluster 3 0.6650624 0.6426241 0.6183121 0.6139560 0.5820071 0.5927489 0.6252227
## Cluster 4 0.6216065 0.4922671 0.4983177 0.5224332 0.4824549 0.4464260 0.4527040
## Cluster 5 0.4902931 0.4863103 0.4832241 0.4938103 0.4701940 0.4534655 0.5150517
                           16605
                                     16606
                                                          16608
##
                 16604
                                               16607
                                                                    16609
                                                                              16610
## Cluster 1 0.5781950 0.5810066 0.5512082 0.4986313 0.4252759 0.3580000 0.2626180
## Cluster 2 0.5949971 0.6505660 0.6915220 0.5732258 0.4672258 0.3706012 0.2669648
## Cluster 3 0.6416667 0.6613035 0.6868099 0.6815660 0.5782241 0.5089546 0.4262340
## Cluster 4 0.4584007 0.4448484 0.4407220 0.4300614 0.3626823 0.3054657 0.2703249
## Cluster 5 0.5510129 0.6142543 0.6291034 0.6763017 0.7191509 0.6437198 0.5264828
##
                 16611
                           16612
                                     16613
                                               16614
                                                          16615
                                                                    16616
                                                                              16617
```

```
## Cluster 1 0.2153130 0.1946857 0.1764483 0.1751141 0.1664642 0.1654257 0.1640212
## Cluster 2 0.2414927 0.2069091 0.1855953 0.1732405 0.1657595 0.1680235 0.1623636
## Cluster 3 0.3553305 0.2876879 0.2432468 0.2257745 0.2190624 0.2088965 0.2037348
## Cluster 4 0.2484549 0.2134368 0.2085993 0.1955668 0.2108448 0.2015451 0.2291913
## Cluster 5 0.4038879 0.3610388 0.3217672 0.3227802 0.2782155 0.2618103 0.2887716
                 16618
                           16619
                                     16620
                                                         16622
                                                                    16623
                                               16621
## Cluster 1 0.1659164 0.1723647 0.1862613 0.2022838 0.2368939 0.3150862 0.4466525
## Cluster 2 0.1613930 0.1739677 0.2076510 0.2554457 0.3020000 0.3344194 0.3869150
## Cluster 3 0.1992624 0.2202028 0.2299333 0.2519589 0.2664255 0.3196411 0.3368298
## Cluster 4 0.2132455 0.2243249 0.3026101 0.3705957 0.5706715 0.7354657 0.7125018
  Cluster 5 0.2671078 0.2671164 0.2318276 0.2500905 0.2951638 0.3236207 0.3884009
                           16626
                 16625
                                     16627
                                               16628
                                                         16629
                                                                    16630
                                                                              16631
## Cluster 1 0.5364695 0.4905955 0.4605729 0.4604164 0.4580265 0.4298926 0.4154125
## Cluster 2 0.4059912 0.3452581 0.3072111 0.3150762 0.3009707 0.2907302 0.3063666
## Cluster 3 0.3784752 0.3984000 0.4332667 0.4395277 0.4495574 0.4979191 0.4809518
## Cluster 4 0.5758159 0.5383466 0.3979819 0.3999747 0.4050000 0.3784079 0.3956823
## Cluster 5 0.4298922 0.4312888 0.3629095 0.3919095 0.3655603 0.3862629 0.3928362
##
                 16632
                           16633
                                     16634
                                               16635
                                                         16636
                                                                    16637
                                                                              16638
## Cluster 1 0.4092029 0.4275849 0.4472533 0.4562931 0.4366194 0.4254841 0.4264761
## Cluster 2 0.2700762 0.2617771 0.2691261 0.3012463 0.3057155 0.2954428 0.2793226
## Cluster 3 0.4994752 0.5434241 0.5480723 0.5776199 0.5531844 0.5445447 0.5305177
## Cluster 4 0.3746065 0.3608375 0.3805740 0.4545379 0.3878231 0.4044296 0.3636354
## Cluster 5 0.3450905 0.4164009 0.4043103 0.3967414 0.3797629 0.3500259 0.3213362
                 16639
                           16640
                                     16641
                                               16642
                                                          16643
                                                                    16644
## Cluster 1 0.4535265 0.4455875 0.5033077 0.5727507 0.6649973 0.7634655 0.7073687
## Cluster 2 0.2965396 0.3204164 0.3754751 0.3392669 0.4002199 0.4665103 0.5056481
## Cluster 3 0.5170667 0.5536511 0.5662312 0.5969830 0.6324298 0.7012709 0.6735404
## Cluster 4 0.4024260 0.4013213 0.5039892 0.5126787 0.5193791 0.5827798 0.5798592
## Cluster 5 0.3449009 0.4102069 0.3822155 0.3587328 0.3867629 0.4771078 0.4867500
##
                 16646
                           16647
                                     16648
                                               16649
                                                         16650
                                                                    16651
                                                                              16652
## Cluster 1 0.7181313 0.6871406 0.6463408 0.6399655 0.6166141 0.5914403 0.5778037
## Cluster 2 0.5529179 0.5699208 0.5754839 0.5686158 0.5821173 0.5649413 0.5940762
## Cluster 3 0.6232355 0.6359220 0.5831390 0.5898695 0.5814950 0.6060567 0.6184851
## Cluster 4 0.4890542 0.4674440 0.4935126 0.4376751 0.4051949 0.4382635 0.4251588
## Cluster 5 0.4764526 0.4944138 0.4803534 0.4695216 0.5050129 0.5133621 0.5606509
                           16654
                 16653
                                     16655
                                               16656
                                                         16657
                                                                    16658
## Cluster 1 0.6015716 0.5495955 0.4989615 0.4399058 0.3491088 0.2771127 0.2386790
## Cluster 2 0.6024868 0.6022258 0.5344721 0.4592962 0.3786979 0.3103666 0.2894956
## Cluster 3 0.6384014 0.6200638 0.6297092 0.5628440 0.4760383 0.3973858 0.3493248
## Cluster 4 0.4132924 0.3998412 0.4063357 0.3796426 0.3503574 0.2815740 0.2542310
## Cluster 5 0.6022845 0.5921638 0.6079569 0.6456595 0.6010948 0.5457759 0.4785948
                 16660
                           16661
                                     16662
                                               16663
                                                         16664
                                                                    16665
                                                                              16666
## Cluster 1 0.2073130 0.1912719 0.1825822 0.1775650 0.1722334 0.1707241 0.1759483
## Cluster 2 0.2544252 0.2030938 0.1811232 0.1692581 0.1608680 0.1560762 0.1632375
## Cluster 3 0.3094411 0.2760624 0.2499773 0.2338652 0.2313007 0.2170851 0.2122199
## Cluster 4 0.2419603 0.2315343 0.2207004 0.2111552 0.2103502 0.2267040 0.2259314
## Cluster 5 0.3957284 0.3376767 0.3067457 0.2904483 0.2850000 0.2850000 0.2578319
                           16668
                                     16669
                                               16670
                                                          16671
##
                 16667
                                                                    16672
                                                                              16673
## Cluster 1 0.1620517 0.1742467 0.1993674 0.2120676 0.2543806 0.3263647 0.3799151
## Cluster 2 0.1833284 0.1827683 0.2202815 0.2411114 0.2599267 0.2800616 0.3289355
## Cluster 3 0.2122567 0.2203773 0.2281106 0.2319376 0.2588553 0.2615603 0.2762482
## Cluster 4 0.2453791 0.2810325 0.3388628 0.4032960 0.5431155 0.5708448 0.6035343
## Cluster 5 0.2636164 0.2347629 0.2377328 0.2481595 0.2559698 0.3004095 0.3094267
##
                 16674
                           16675
                                     16676
                                               16677
                                                         16678
                                                                    16679
                                                                              16680
```

```
## Cluster 1 0.4527454 0.5217427 0.6014164 0.6228660 0.6056366 0.5812838 0.5770703
## Cluster 2 0.3723402 0.3952199 0.3956188 0.4560674 0.4897214 0.4422141 0.4168446
## Cluster 3 0.3563461 0.4225730 0.5016213 0.5228184 0.5505730 0.5806894 0.5687163
## Cluster 4 0.4950578 0.5257329 0.5363971 0.4947942 0.4602491 0.4679856 0.4708809
## Cluster 5 0.3049009 0.3575302 0.3302155 0.3833103 0.4492802 0.4552888 0.4614526
                 16681
                           16682
                                     16683
                                                         16685
                                                                    16686
                                               16684
## Cluster 1 0.5717082 0.5723607 0.5969536 0.5608143 0.5499947 0.5054310 0.5068634
## Cluster 2 0.4404633 0.4204252 0.4127742 0.4045924 0.4362493 0.4467419 0.3929091
## Cluster 3 0.5836227 0.6000284 0.6329716 0.5898241 0.5975447 0.5392709 0.5570071
## Cluster 4 0.4934188 0.4331047 0.4648953 0.4489061 0.4012635 0.3774007 0.4339458
  Cluster 5 0.4071810 0.4408836 0.5256983 0.4612759 0.4088190 0.4137543 0.3957888
                 16688
                           16689
                                     16690
                                               16691
                                                         16692
                                                                    16693
                                                                              16694
## Cluster 1 0.4993408 0.4957573 0.5071790 0.6495040 0.7323064 0.7465809 0.7484416
## Cluster 2 0.3986188 0.4145396 0.3499208 0.4023314 0.4598944 0.5637595 0.5857683
## Cluster 3 0.5793418 0.5559518 0.5899674 0.6577220 0.6633348 0.6904326 0.6508936
## Cluster 4 0.4532094 0.4872238 0.4876679 0.5729097 0.5823502 0.5714477 0.5119531
## Cluster 5 0.4399310 0.3986853 0.4342069 0.4434397 0.5002845 0.5447112 0.4815431
##
                 16695
                           16696
                                     16697
                                               16698
                                                         16699
                                                                    16700
                                                                              16701
## Cluster 1 0.6713634 0.6444350 0.6345782 0.5524337 0.5131804 0.5468515 0.5254390
## Cluster 2 0.5867067 0.6136921 0.6317889 0.5813666 0.5180704 0.5425953 0.5683578
## Cluster 3 0.6302014 0.6388355 0.6039191 0.5912468 0.6052596 0.5849092 0.6267106
## Cluster 4 0.4915018 0.5592671 0.4359928 0.4323682 0.3912924 0.4154874 0.4326065
## Cluster 5 0.5265690 0.5048793 0.4748534 0.5060819 0.5172845 0.5350948 0.5831853
                 16702
                           16703
                                     16704
                                               16705
                                                         16706
                                                                    16707
## Cluster 1 0.5259151 0.4942586 0.4089589 0.3342109 0.2935199 0.2536910 0.2213249
## Cluster 2 0.5534340 0.5137801 0.4717713 0.3640587 0.3159912 0.2772053 0.2321906
## Cluster 3 0.5991660 0.5954340 0.5342284 0.4827291 0.3989589 0.3455631 0.3197319
## Cluster 4 0.4216173 0.3693718 0.3302635 0.2932274 0.2631480 0.2408556 0.2362527
## Cluster 5 0.5668276 0.6037112 0.6111724 0.5336681 0.4866466 0.4393621 0.4021638
##
                 16709
                           16710
                                     16711
                                               16712
                                                         16713
                                                                    16714
                                                                              16715
## Cluster 1 0.2077931 0.1976870 0.1930902 0.1934867 0.1759324 0.1765027 0.1738435
## Cluster 2 0.2157977 0.1717214 0.1719648 0.1624282 0.1667625 0.1609501 0.1764399
## Cluster 3 0.2899801 0.2654355 0.2502979 0.2287773 0.2186071 0.2180638 0.2118681
## Cluster 4 0.2324116 0.2109170 0.2137581 0.2108339 0.2261480 0.2408014 0.2468412
  Cluster 5 0.3731853 0.3431595 0.3338319 0.2852759 0.2938405 0.2812629 0.2530776
                                                         16720
                 16716
                           16717
                                     16718
                                               16719
                                                                    16721
                                                                              16722
## Cluster 1 0.1929682 0.1875504 0.2038183 0.2341406 0.2584668 0.3260769 0.3957931
## Cluster 2 0.1679032 0.1918710 0.2264457 0.1975660 0.2208475 0.2585777 0.3260381
## Cluster 3 0.2178184 0.2188199 0.2213560 0.2419730 0.2556312 0.2713418 0.3006014
## Cluster 4 0.2965523 0.3849964 0.3571047 0.3825668 0.3904477 0.4402563 0.4776462
## Cluster 5 0.2633319 0.2358448 0.2416121 0.2671681 0.3114483 0.2680216 0.2988922
                 16723
                           16724
                                     16725
                                               16726
                                                         16727
                                                                    16728
                                                                              16729
## Cluster 1 0.4810517 0.5373316 0.6259443 0.6363024 0.6787241 0.6970915 0.6805159
## Cluster 2 0.3390674 0.3865103 0.3739326 0.4407771 0.4428094 0.4313167 0.4538504
## Cluster 3 0.3919716 0.4763177 0.5261390 0.6208440 0.6688695 0.7052539 0.6944738
## Cluster 4 0.4875884 0.4605307 0.5119711 0.5559278 0.5900325 0.5631336 0.6290542
## Cluster 5 0.3803017 0.3856336 0.4409612 0.4872112 0.4541422 0.5079267 0.5614353
                           16731
                                     16732
##
                 16730
                                               16733
                                                          16734
                                                                    16735
                                                                              16736
## Cluster 1 0.7090398 0.6858422 0.6319947 0.5785849 0.5899377 0.5322003 0.5411804
## Cluster 2 0.5173255 0.4931202 0.4640821 0.4538622 0.3815865 0.4116598 0.3977009
## Cluster 3 0.7548936 0.7565617 0.7215262 0.6557702 0.6719730 0.6210411 0.6104199
## Cluster 4 0.5971336 0.5726209 0.5472852 0.4469892 0.5095090 0.5233827 0.4999856
## Cluster 5 0.5635086 0.5184569 0.5115517 0.4593147 0.4095345 0.4376034 0.4712672
##
                 16737
                           16738
                                     16739
                                               16740
                                                          16741
                                                                    16742
                                                                              16743
```

```
## Cluster 1 0.5419562 0.5238077 0.5850477 0.6712666 0.6582931 0.6569775 0.6529642
## Cluster 2 0.4445601 0.4354692 0.4715718 0.5020323 0.5426070 0.5719150 0.6333402
## Cluster 3 0.6154298 0.6006312 0.6017035 0.6550879 0.6463702 0.5590071 0.5747574
## Cluster 4 0.5190939 0.5132238 0.4979603 0.4879025 0.5376715 0.4768087 0.4782419
## Cluster 5 0.4675603 0.4397802 0.4501034 0.4766940 0.4753405 0.4413276 0.4747155
                 16744
                           16745
                                                          16748
                                                                    16749
##
                                     16746
                                               16747
## Cluster 1 0.5762268 0.5944509 0.5432706 0.5342215 0.5164363 0.5292374 0.5122387
## Cluster 2 0.5537742 0.6377742 0.5620762 0.5179736 0.5352405 0.5889384 0.5677331
## Cluster 3 0.5418624 0.5495787 0.5728426 0.5870028 0.6138014 0.6233376 0.6080539
## Cluster 4 0.4880072 0.4877617 0.4710794 0.4755776 0.4823791 0.4509639 0.4167401
  Cluster 5 0.4448879 0.4829224 0.4492672 0.4470905 0.4500302 0.5626078 0.6229871
                           16752
                                     16753
                 16751
                                               16754
                                                          16755
                                                                    16756
                                                                              16757
## Cluster 1 0.4550517 0.3871631 0.2998714 0.2434244 0.2060782 0.1893249 0.1731618
## Cluster 2 0.5159589 0.4607449 0.3309208 0.2489267 0.2248944 0.1913050 0.1846628
## Cluster 3 0.5846709 0.5358440 0.4545277 0.3927163 0.3181106 0.2797319 0.2558043
## Cluster 4 0.3726570 0.3167653 0.3020650 0.2694043 0.2330758 0.2255668 0.2191480
## Cluster 5 0.6690603 0.6362888 0.5672414 0.4819353 0.4247414 0.3619526 0.3331336
##
                 16758
                           16759
                                     16760
                                               16761
                                                          16762
                                                                    16763
                                                                              16764
## Cluster 1 0.1714204 0.1695676 0.1684072 0.1714775 0.1753727 0.1701021 0.1752865
## Cluster 2 0.1654545 0.1706686 0.1543783 0.1441114 0.1487771 0.1794839 0.1962933
## Cluster 3 0.2382780 0.2267745 0.2222979 0.2081291 0.2042851 0.2232113 0.2220752
## Cluster 4 0.2076679 0.2094332 0.2096354 0.2122419 0.2470758 0.2794440 0.3516354
## Cluster 5 0.3121078 0.2795991 0.2547026 0.2582457 0.2308060 0.2590948 0.2290776
                 16765
                           16766
                                     16767
                                               16768
                                                          16769
                                                                    16770
## Cluster 1 0.1969271 0.2249164 0.3004456 0.3852639 0.4383050 0.4743939 0.4465491
## Cluster 2 0.2431496 0.3013959 0.3380176 0.3723050 0.4224780 0.3408974 0.3108827
## Cluster 3 0.2256638 0.2595418 0.3011532 0.3691248 0.3621078 0.3936993 0.4138879
## Cluster 4 0.4299350 0.5750000 0.7094838 0.6495704 0.6830578 0.5133682 0.4396679
## Cluster 5 0.2293060 0.2360129 0.2840474 0.3752759 0.3546853 0.3642026 0.3505560
##
                 16772
                           16773
                                     16774
                                               16775
                                                          16776
                                                                    16777
                                                                              16778
## Cluster 1 0.4591432 0.4619164 0.4776777 0.4885902 0.4428037 0.4875451 0.5221923
## Cluster 2 0.2849003 0.2784164 0.3000557 0.3288387 0.2903138 0.3149472 0.3171232
## Cluster 3 0.4120057 0.4412837 0.4491730 0.4662298 0.4803149 0.5152298 0.5475901
## Cluster 4 0.4265668 0.4241408 0.4363105 0.4211372 0.4227365 0.4551986 0.4313682
## Cluster 5 0.3048448 0.3469698 0.3399871 0.3964741 0.3571724 0.3614483 0.3696293
                                               16782
                 16779
                           16780
                                     16781
                                                          16783
                                                                    16784
                                                                              16785
## Cluster 1 0.5294814 0.4828011 0.4456538 0.4720199 0.4976472 0.4858833 0.5500358
## Cluster 2 0.3224692 0.3019795 0.2799032 0.2672903 0.2899853 0.2857566 0.3097742
## Cluster 3 0.5591433 0.5864071 0.5617277 0.5809660 0.6073149 0.5988879 0.6112511
## Cluster 4 0.4485776 0.3966029 0.4412130 0.4252058 0.4527762 0.4329314 0.5837220
## Cluster 5 0.3456078 0.3480603 0.3471379 0.3320431 0.3435948 0.3649526 0.3663793
                 16786
                           16787
                                     16788
                                               16789
                                                          16790
                                                                    16791
                                                                              16792
## Cluster 1 0.6315385 0.7794894 0.8401605 0.8022467 0.7181592 0.6895292 0.6742971
## Cluster 2 0.3197185 0.4169208 0.4846334 0.6230176 0.6428065 0.7340264 0.6807918
## Cluster 3 0.6927645 0.6863943 0.7223106 0.7044596 0.6706993 0.6804043 0.6433277
## Cluster 4 0.6276895 0.6761841 0.6817762 0.6364874 0.6405487 0.6095162 0.5319928
## Cluster 5 0.4036940 0.4786983 0.4983621 0.4877026 0.4679009 0.5745172 0.5368405
                           16794
                                     16795
##
                 16793
                                               16796
                                                          16797
                                                                    16798
                                                                              16799
## Cluster 1 0.6064523 0.6133793 0.5761883 0.5856804 0.6052931 0.5638064 0.5051127
## Cluster 2 0.6655073 0.7014135 0.6849619 0.6637625 0.6600323 0.6686452 0.5848094
## Cluster 3 0.6169404 0.6121092 0.6525319 0.6761745 0.6992936 0.6686397 0.6481844
## Cluster 4 0.5011480 0.4900108 0.4936534 0.4650000 0.4437184 0.4354693 0.4217473
## Cluster 5 0.4983793 0.5328578 0.5138534 0.5198664 0.6085517 0.6548750 0.7336681
##
                 16800
                           16801
                                     16802
                                               16803
                                                          16804
                                                                    16805
                                                                              16806
```

```
## Cluster 1 0.4119151 0.3117255 0.2495995 0.2034987 0.1905769 0.1812387 0.1701313
## Cluster 2 0.4537947 0.3307654 0.2960499 0.2023519 0.1860587 0.1651349 0.1614927
## Cluster 3 0.5704043 0.4653574 0.3843319 0.3202511 0.2803532 0.2462270 0.2333617
## Cluster 4 0.3419603 0.2968195 0.2591227 0.2303213 0.2148484 0.2060217 0.2056282
## Cluster 5 0.7231767 0.6017198 0.5118534 0.3793578 0.3477371 0.2961121 0.2654655
                           16808
                                     16809
                                                          16811
##
                 16807
                                               16810
                                                                    16812
## Cluster 1 0.1652255 0.1661220 0.1665544 0.1705942 0.1753103 0.1741485 0.1973037
## Cluster 2 0.1475220 0.1499765 0.1475015 0.1464194 0.1780147 0.1988563 0.2605982
## Cluster 3 0.2177064 0.2134014 0.2077362 0.2075972 0.2172397 0.2337121 0.2471319
## Cluster 4 0.2061264 0.2133899 0.2048736 0.2247617 0.2461805 0.3166462 0.4309025
  Cluster 5 0.2670172 0.2486983 0.2659095 0.2531940 0.2696466 0.2435905 0.2649483
                                     16816
                 16814
                           16815
                                               16817
                                                          16818
                                                                    16819
                                                                              16820
## Cluster 1 0.2334469 0.3185716 0.4438382 0.4950663 0.5093342 0.5337599 0.5020610
## Cluster 2 0.3151349 0.3542287 0.3732815 0.3665015 0.3029707 0.2972082 0.3242669
## Cluster 3 0.2859645 0.3000454 0.3583660 0.3714567 0.4139050 0.4628681 0.4640000
## Cluster 4 0.5327148 0.7652527 0.6588845 0.6210325 0.5338375 0.5027437 0.4541769
## Cluster 5 0.3142457 0.3479138 0.4373362 0.3779181 0.3845086 0.3582328 0.3202759
##
                 16821
                           16822
                                     16823
                                               16824
                                                          16825
                                                                    16826
                                                                              16827
## Cluster 1 0.4910146 0.4736751 0.4550531 0.4110146 0.4442294 0.4684748 0.4296472
## Cluster 2 0.2891877 0.2464809 0.2311965 0.2472023 0.2654575 0.2721144 0.2750000
## Cluster 3 0.4724426 0.4846610 0.4845986 0.4892610 0.5397901 0.5494794 0.5599035
## Cluster 4 0.4039314 0.3836823 0.4382202 0.4433032 0.4247690 0.4204729 0.4026570
## Cluster 5 0.3481552 0.3381897 0.3177198 0.3191983 0.3049095 0.3252586 0.3659353
                 16828
                           16829
                                     16830
                                               16831
                                                          16832
                                                                    16833
## Cluster 1 0.4078687 0.4055968 0.4189735 0.4288727 0.4558130 0.4708117 0.5992732
## Cluster 2 0.2383167 0.2408798 0.2223754 0.2576774 0.3024897 0.2996188 0.2916364
## Cluster 3 0.5261007 0.5111433 0.5480695 0.5493404 0.5945929 0.5987475 0.6459035
## Cluster 4 0.4147365 0.4011300 0.4068664 0.4363105 0.4331841 0.5178231 0.6389495
## Cluster 5 0.3605819 0.3523922 0.3047026 0.3172241 0.3400302 0.3756983 0.3791681
##
                 16835
                           16836
                                     16837
                                               16838
                                                          16839
                                                                    16840
                                                                              16841
## Cluster 1 0.7204655 0.8688740 0.8057653 0.7465146 0.6672599 0.6476963 0.6521631
## Cluster 2 0.3663431 0.4293871 0.5361437 0.5559443 0.6360938 0.5999238 0.6673284
## Cluster 3 0.6403957 0.6569092 0.6805745 0.6964128 0.6308950 0.6026000 0.6076383
## Cluster 4 0.6278051 0.6554585 0.5793791 0.5432347 0.5346895 0.5539206 0.4768917
## Cluster 5 0.4154009 0.4183190 0.4488664 0.4553922 0.4315259 0.4730474 0.4591810
                                     16844
                                                          16846
                 16842
                           16843
                                               16845
                                                                    16847
                                                                              16848
## Cluster 1 0.5799947 0.5642268 0.6099284 0.6032507 0.5588090 0.5014469 0.4167334
## Cluster 2 0.5970499 0.6075689 0.6314076 0.6358680 0.6137918 0.5415543 0.4377595
## Cluster 3 0.6319362 0.6118851 0.6564567 0.6725390 0.6890326 0.6801007 0.6118298
## Cluster 4 0.5153538 0.4871047 0.4829422 0.4855343 0.4634657 0.4337220 0.3444440
## Cluster 5 0.4530647 0.4533922 0.5077284 0.5301121 0.6137155 0.7018534 0.6441121
                           16850
                                     16851
                                               16852
                                                          16853
                 16849
                                                                    16854
                                                                              16855
## Cluster 1 0.3155703 0.2457719 0.2177692 0.1902599 0.1805623 0.1775371 0.1657149
## Cluster 2 0.3384927 0.2554663 0.2240792 0.1920235 0.1731672 0.1636041 0.1632815
## Cluster 3 0.5090199 0.3997546 0.3321816 0.2835135 0.2460837 0.2265262 0.2161801
## Cluster 4 0.3148014 0.2660722 0.2294224 0.2152671 0.2139603 0.2052202 0.2142780
## Cluster 5 0.5771638 0.4673190 0.4263750 0.3590560 0.3091897 0.2818922 0.2673362
                 16856
                           16857
                                     16858
                                               16859
                                                          16860
##
                                                                    16861
                                                                              16862
## Cluster 1 0.1619310 0.1627812 0.1762639 0.1703395 0.1760292 0.1955159 0.2086698
## Cluster 2 0.1518651 0.1456393 0.1535015 0.1820528 0.2076569 0.2814047 0.3232141
## Cluster 3 0.2050936 0.2148638 0.2021887 0.2121716 0.2300383 0.2461035 0.2688993
## Cluster 4 0.1997437 0.2050866 0.2456101 0.2633141 0.3501119 0.4167401 0.5367726
## Cluster 5 0.2513836 0.2576034 0.2381638 0.2383103 0.2328578 0.2230086 0.2715086
##
                 16863
                           16864
                                     16865
                                               16866
                                                          16867
                                                                    16868
                                                                              16869
```

```
## Cluster 1 0.3166446 0.4105385 0.4730332 0.4912533 0.5046565 0.4713992 0.5057931
## Cluster 2 0.3889677 0.3873079 0.4274809 0.2884868 0.3173754 0.2650850 0.2493050
## Cluster 3 0.3311078 0.3498652 0.3807106 0.4071305 0.4128043 0.4461532 0.4301532
## Cluster 4 0.6809819 0.7245271 0.6314296 0.5079928 0.4573610 0.3634874 0.4161588
## Cluster 5 0.2896250 0.3628147 0.3529138 0.3582586 0.3323276 0.3437198 0.3188190
                                                         16874
##
                 16870
                           16871
                                     16872
                                               16873
                                                                    16875
## Cluster 1 0.4569125 0.4515690 0.4157069 0.4071048 0.4563780 0.4703714 0.4740279
## Cluster 2 0.2636100 0.2269443 0.2840880 0.2585191 0.2804633 0.2804604 0.2593255
## Cluster 3 0.4725858 0.4666326 0.4607277 0.4871702 0.5189915 0.5754908 0.5117716
## Cluster 4 0.4374477 0.4235451 0.4282455 0.4083321 0.3832310 0.4501227 0.4128881
  Cluster 5 0.3382112 0.2816595 0.3233621 0.3097284 0.3655948 0.3306379 0.3358750
                           16878
                                     16879
                 16877
                                               16880
                                                         16881
                                                                    16882
                                                                              16883
## Cluster 1 0.4419284 0.4168302 0.4119019 0.4243369 0.5108024 0.5739098 0.7214098
## Cluster 2 0.2435015 0.2615806 0.2566364 0.2812229 0.3057419 0.3418886 0.3712815
## Cluster 3 0.4744000 0.4854752 0.5324355 0.5420965 0.6186709 0.6333589 0.6504014
## Cluster 4 0.3730650 0.3945415 0.4435018 0.4671949 0.5608881 0.6467690 0.6881877
## Cluster 5 0.3690991 0.3691466 0.3994612 0.3707241 0.3610991 0.3628534 0.4112672
##
                 16884
                           16885
                                     16886
                                               16887
                                                         16888
                                                                    16889
                                                                              16890
## Cluster 1 0.8450239 0.8142334 0.7471194 0.7481446 0.6882162 0.6479973 0.6511207
## Cluster 2 0.4612581 0.5153812 0.6204575 0.6990587 0.6870205 0.7408798 0.6531290
## Cluster 3 0.6836468 0.7089149 0.6654638 0.6925730 0.6639688 0.6866879 0.6581362
## Cluster 4 0.6364440 0.6163610 0.5463899 0.5521408 0.4888159 0.4714982 0.4690072
## Cluster 5 0.4177241 0.5100603 0.5525776 0.5635819 0.5641466 0.4990560 0.5272931
                 16891
                           16892
                                     16893
                                               16894
                                                         16895
                                                                    16896
## Cluster 1 0.6408714 0.5889111 0.6346141 0.5662865 0.4794244 0.4190318 0.3275663
## Cluster 2 0.6811290 0.6261760 0.6717067 0.6000029 0.5306686 0.4224194 0.3105132
## Cluster 3 0.6822298 0.6802780 0.7287957 0.7120397 0.6518993 0.5531461 0.4806525
## Cluster 4 0.4621155 0.5227112 0.5102419 0.4700289 0.4189278 0.3622202 0.2887978
## Cluster 5 0.5598017 0.5945000 0.6588621 0.6381638 0.6468233 0.6376078 0.5291121
##
                 16898
                           16899
                                     16900
                                               16901
                                                         16902
                                                                    16903
                                                                              16904
## Cluster 1 0.2551194 0.2107533 0.1915491 0.1800424 0.1846671 0.1750544 0.1740915
## Cluster 2 0.2467273 0.2038123 0.2019091 0.1871466 0.1704956 0.1602610 0.1507155
## Cluster 3 0.3934482 0.3306596 0.2746596 0.2470794 0.2289291 0.2418979 0.2225234
## Cluster 4 0.2656173 0.2547545 0.2204043 0.2289783 0.2225523 0.2215271 0.1990758
## Cluster 5 0.4851293 0.4137629 0.3445948 0.3102198 0.3062328 0.2635733 0.2441078
                 16905
                                                         16909
                           16906
                                     16907
                                               16908
                                                                    16910
## Cluster 1 0.1747401 0.1666313 0.1723103 0.1863979 0.2007878 0.2265716 0.3106870
## Cluster 2 0.1490850 0.1646012 0.1939443 0.1903812 0.2660176 0.2922757 0.3665425
## Cluster 3 0.2091986 0.2079844 0.2212894 0.2375830 0.2435759 0.2646454 0.3102213
## Cluster 4 0.2099350 0.2511516 0.2799675 0.3381949 0.4361552 0.5304368 0.6415776
## Cluster 5 0.2583836 0.2584828 0.2441034 0.2291595 0.2392974 0.2509698 0.2711767
                 16912
                           16913
                                     16914
                                               16915
                                                         16916
                                                                    16917
                                                                              16918
## Cluster 1 0.3911645 0.4242719 0.4566273 0.4871419 0.4979973 0.5347122 0.5321313
## Cluster 2 0.3601877 0.3889472 0.3210616 0.3222229 0.2958680 0.2973196 0.2919472
## Cluster 3 0.3276383 0.3593277 0.3707135 0.4210043 0.4443461 0.4658667 0.4916482
## Cluster 4 0.6825307 0.6183935 0.5098448 0.4458087 0.4082094 0.3792455 0.3966029
## Cluster 5 0.3393319 0.3626121 0.3431724 0.3228362 0.3229914 0.3039440 0.3271595
                           16920
##
                 16919
                                     16921
                                               16922
                                                          16923
                                                                    16924
                                                                              16925
## Cluster 1 0.4863806 0.4486114 0.4574708 0.5101658 0.5203541 0.4797268 0.4604814
## Cluster 2 0.2427742 0.2227302 0.2177801 0.2689238 0.2726804 0.2902845 0.2937273
## Cluster 3 0.5116837 0.5185177 0.5280057 0.5204312 0.5169773 0.5247418 0.5206738
## Cluster 4 0.4478592 0.4497617 0.3949603 0.4377076 0.4576209 0.4292924 0.3780722
## Cluster 5 0.3510302 0.3907155 0.3833233 0.4510603 0.3877672 0.3532500 0.3415216
##
                 16926
                           16927
                                     16928
                                               16929
                                                         16930
                                                                    16931
                                                                              16932
```

```
## Cluster 1 0.4291286 0.4349536 0.4428634 0.4713064 0.5498926 0.7329881 0.8231393
## Cluster 2 0.2684927 0.2513138 0.2599238 0.2479883 0.2960587 0.3565777 0.4557067
## Cluster 3 0.5416695 0.5762284 0.5470567 0.5872837 0.6527234 0.6534766 0.6332156
## Cluster 4 0.3995704 0.4513285 0.4322274 0.5451444 0.6184332 0.6706643 0.6708917
## Cluster 5 0.3581466 0.3373966 0.3195172 0.3634698 0.3509052 0.3941207 0.4179784
                 16933
                           16934
                                               16936
                                                          16937
                                                                    16938
##
                                     16935
## Cluster 1 0.7759125 0.6881684 0.6672003 0.6289390 0.6031592 0.5987175 0.6210133
## Cluster 2 0.5310616 0.6327009 0.6375689 0.6243431 0.6600059 0.6080499 0.6320880
## Cluster 3 0.6154865 0.6460624 0.6242496 0.5997844 0.5715305 0.5831206 0.6227078
## Cluster 4 0.5551841 0.5494152 0.5207365 0.5337365 0.5060108 0.4587329 0.4891011
  Cluster 5 0.4889095 0.5016552 0.5403319 0.4974914 0.4529310 0.4656767 0.5173966
                           16941
                                     16942
                 16940
                                               16943
                                                          16944
                                                                    16945
                                                                              16946
## Cluster 1 0.5890756 0.6061923 0.5741910 0.5201459 0.4244390 0.3286286 0.2619244
## Cluster 2 0.6603754 0.6669326 0.6572991 0.5927273 0.4684545 0.3451760 0.2728152
## Cluster 3 0.6821688 0.6587135 0.6895248 0.6727730 0.5806227 0.4885035 0.3922014
## Cluster 4 0.5041986 0.4926029 0.4731733 0.4545812 0.4364404 0.3023791 0.2593935
## Cluster 5 0.4886509 0.5729353 0.6543922 0.6997759 0.6468147 0.5644483 0.5221466
##
                 16947
                           16948
                                     16949
                                               16950
                                                          16951
                                                                    16952
                                                                              16953
## Cluster 1 0.2223926 0.1925186 0.1847546 0.1808952 0.1742905 0.1673223 0.1660716
## Cluster 2 0.2209150 0.2105044 0.1743255 0.1709296 0.1566070 0.1509326 0.1523460
## Cluster 3 0.3372965 0.2978454 0.2632468 0.2437546 0.2226043 0.2121035 0.2085730
## Cluster 4 0.2388881 0.2080830 0.2144657 0.2039206 0.2140650 0.2198448 0.1983574
## Cluster 5 0.4555172 0.3975862 0.3230517 0.2977629 0.2575862 0.2617974 0.2604224
                 16954
                           16955
                                     16956
                                               16957
                                                          16958
                                                                    16959
## Cluster 1 0.1710849 0.1744178 0.1885225 0.2021472 0.2228820 0.3080013 0.3934576
## Cluster 2 0.1619472 0.1726686 0.1791349 0.2322698 0.3232933 0.3795044 0.4080235
## Cluster 3 0.2058128 0.2102879 0.2236794 0.2533631 0.2748894 0.3354667 0.3324922
## Cluster 4 0.2438448 0.2356643 0.3257906 0.4322310 0.5440361 0.6713357 0.7548051
## Cluster 5 0.2413362 0.2454957 0.2219181 0.2454698 0.2692802 0.2719181 0.3529267
##
                 16961
                           16962
                                     16963
                                               16964
                                                          16965
                                                                    16966
                                                                              16967
## Cluster 1 0.4739987 0.5262626 0.5459947 0.5634496 0.5232281 0.4700862 0.4333501
## Cluster 2 0.4152581 0.3172258 0.3173666 0.3015601 0.3060323 0.3012845 0.2746979
## Cluster 3 0.3733702 0.4198255 0.4657390 0.4811574 0.4720993 0.4747050 0.4884340
## Cluster 4 0.6562274 0.5390830 0.5016859 0.3978123 0.4422635 0.4240578 0.4211949
## Cluster 5 0.3859440 0.3528448 0.3477543 0.3520733 0.3328707 0.3266853 0.3328017
                           16969
                 16968
                                     16970
                                               16971
                                                          16972
                                                                    16973
## Cluster 1 0.4287281 0.4784907 0.4865438 0.4758515 0.4601499 0.4469602 0.4620915
## Cluster 2 0.2914457 0.2789267 0.3140059 0.3261789 0.3013167 0.2878768 0.2858827
## Cluster 3 0.5290879 0.5150369 0.5428780 0.5423177 0.5413816 0.5164426 0.5275376
## Cluster 4 0.4157040 0.4412238 0.4095776 0.4494440 0.4286570 0.3716895 0.3693285
## Cluster 5 0.3303621 0.3885733 0.4377112 0.4315388 0.3966164 0.4143448 0.3310216
                 16975
                           16976
                                     16977
                                               16978
                                                          16979
                                                                    16980
                                                                              16981
## Cluster 1 0.4445093 0.4601406 0.5260557 0.5692878 0.7071578 0.7818806 0.7468594
## Cluster 2 0.2994106 0.2993167 0.3379795 0.3393167 0.4137243 0.4371114 0.5486833
## Cluster 3 0.5628355 0.5856170 0.5911603 0.6101603 0.6613050 0.6938837 0.6642284
## Cluster 4 0.4127148 0.4144838 0.5056354 0.5846859 0.6604043 0.5853357 0.5628412
## Cluster 5 0.3345216 0.3852974 0.3781164 0.4037198 0.3907241 0.4239655 0.4395000
                           16983
                                     16984
                                               16985
                                                          16986
##
                 16982
                                                                    16987
                                                                              16988
## Cluster 1 0.7114231 0.6873727 0.6132812 0.5908462 0.5866724 0.5183329 0.5530570
## Cluster 2 0.5684663 0.5736246 0.6014223 0.5966422 0.5484047 0.5079062 0.4924633
## Cluster 3 0.6404028 0.6479887 0.5893773 0.5602397 0.5731702 0.5860667 0.5734454
## Cluster 4 0.6141625 0.5844729 0.5238339 0.4519639 0.4122238 0.4421408 0.4266968
## Cluster 5 0.4764310 0.5100733 0.4793448 0.4987371 0.4972414 0.4899440 0.5205216
##
                 16989
                           16990
                                     16991
                                               16992
                                                          16993
                                                                    16994
                                                                              16995
```

```
## Cluster 1 0.5538687 0.5520703 0.5191141 0.4606074 0.3675040 0.2928408 0.2617308
## Cluster 2 0.5007331 0.5108387 0.5174839 0.4383460 0.3652639 0.2792991 0.2335953
## Cluster 3 0.6043206 0.6222440 0.6144638 0.5767574 0.4891149 0.4039390 0.3403220
## Cluster 4 0.4574332 0.4606137 0.4389097 0.3739025 0.3345884 0.2896173 0.2564116
## Cluster 5 0.5331034 0.5844138 0.6553233 0.6679569 0.5739914 0.4877974 0.4364957
                 16996
                           16997
                                     16998
                                               16999
                                                          17000
                                                                    17001
##
                                                                              17002
## Cluster 1 0.2141844 0.1957480 0.1838130 0.1801286 0.1736432 0.1695902 0.1691777
## Cluster 2 0.2110880 0.1910323 0.1704223 0.1638211 0.1624868 0.1536921 0.1525425
## Cluster 3 0.3020993 0.2766085 0.2384411 0.2171631 0.2187489 0.2050355 0.2038738
## Cluster 4 0.2425415 0.2237509 0.2081155 0.2213935 0.2177762 0.2105271 0.2289314
  Cluster 5 0.4176422 0.3724957 0.2983319 0.2892284 0.2604741 0.2732629 0.2609440
                 17003
                           17004
                                     17005
                                               17006
                                                          17007
                                                                    17008
                                                                              17009
## Cluster 1 0.1707653 0.1771379 0.1847812 0.2070822 0.2514045 0.3103674 0.3797732
## Cluster 2 0.1774340 0.1681730 0.1987390 0.2380059 0.2810352 0.2875689 0.3332375
## Cluster 3 0.2021078 0.2098809 0.2285390 0.2203716 0.2275972 0.2773376 0.3060312
## Cluster 4 0.2385054 0.2962383 0.3435451 0.3799964 0.5038267 0.5451372 0.5682924
## Cluster 5 0.2429957 0.2340129 0.2378750 0.2605776 0.2482155 0.2902543 0.2977328
##
                 17010
                           17011
                                     17012
                                               17013
                                                          17014
                                                                    17015
                                                                              17016
## Cluster 1 0.4563223 0.5253886 0.6047692 0.6158024 0.6281353 0.6396432 0.5874828
## Cluster 2 0.3953372 0.3961085 0.4118035 0.4527830 0.4398475 0.4033959 0.3888358
## Cluster 3 0.3871191 0.4390397 0.4822922 0.5550525 0.5440979 0.5696454 0.5806142
## Cluster 4 0.6039639 0.6150542 0.5780253 0.4976354 0.4879422 0.5349928 0.5088881
## Cluster 5 0.2896595 0.3280560 0.3866983 0.4463276 0.4323578 0.4449483 0.4896509
                 17017
                           17018
                                     17019
                                               17020
                                                          17021
                                                                    17022
## Cluster 1 0.6114682 0.6023554 0.5951525 0.5591114 0.5233103 0.4949828 0.4755371
## Cluster 2 0.4157214 0.3984428 0.3929003 0.4146100 0.4170938 0.4284135 0.3929501
## Cluster 3 0.6452071 0.6277887 0.6271688 0.6100355 0.6126099 0.5781106 0.5724213
## Cluster 4 0.5083899 0.5055415 0.4655704 0.4866101 0.3844982 0.4028484 0.4649314
## Cluster 5 0.4498319 0.4477414 0.4908664 0.4116293 0.4431207 0.4694655 0.4221034
##
                 17024
                           17025
                                     17026
                                               17027
                                                          17028
                                                                    17029
                                                                              17030
## Cluster 1 0.4887480 0.5109655 0.5523422 0.6188382 0.7353966 0.7324867 0.7556008
## Cluster 2 0.3981554 0.4196100 0.3906569 0.3636393 0.4464164 0.6211408 0.6399589
## Cluster 3 0.5849915 0.5891830 0.6175773 0.6513007 0.6764879 0.6452567 0.6553915
## Cluster 4 0.4701336 0.5258592 0.6322996 0.7511408 0.6726101 0.6196751 0.5626462
  Cluster 5 0.4867500 0.4439181 0.4329914 0.5037371 0.4844353 0.4893707 0.5323578
                 17031
                           17032
                                     17033
                                               17034
                                                          17035
                                                                    17036
                                                                              17037
## Cluster 1 0.6719257 0.6368011 0.6319867 0.5678634 0.5557401 0.5474151 0.5432692
## Cluster 2 0.6384164 0.6110411 0.5696012 0.5458123 0.5340440 0.5120235 0.5160323
## Cluster 3 0.6081546 0.6188667 0.6293631 0.5876511 0.5728213 0.5889348 0.5863064
## Cluster 4 0.5659531 0.5143899 0.4736029 0.3879892 0.4490794 0.4599025 0.4520289
## Cluster 5 0.5767716 0.4945345 0.5496983 0.5646983 0.5666078 0.5778966 0.6400862
                 17038
                           17039
                                     17040
                                               17041
                                                          17042
                                                                    17043
                                                                              17044
## Cluster 1 0.5085318 0.4732003 0.4097825 0.3480623 0.2876326 0.2359576 0.2143210
## Cluster 2 0.4960293 0.4782111 0.4128739 0.3479150 0.2851994 0.2328123 0.2212317
## Cluster 3 0.5641007 0.5565518 0.5264865 0.4659858 0.3984539 0.3527248 0.3202723
## Cluster 4 0.4428123 0.3954801 0.3764982 0.3090072 0.2817978 0.2402130 0.2361119
## Cluster 5 0.6371466 0.6440388 0.5802759 0.5160862 0.4543060 0.4263103 0.3621552
                           17046
                                     17047
                                               17048
                                                          17049
##
                 17045
                                                                    17050
                                                                              17051
## Cluster 1 0.1983435 0.1845928 0.1813528 0.1863714 0.1686578 0.1653528 0.1786300
## Cluster 2 0.1931320 0.1841085 0.1684018 0.1629941 0.1520205 0.1542053 0.1626628
## Cluster 3 0.2768255 0.2514738 0.2379688 0.2323787 0.2192681 0.2081816 0.2125872
## Cluster 4 0.2227040 0.2290542 0.2412166 0.2257004 0.2209242 0.2275596 0.2606029
## Cluster 5 0.3147371 0.3066078 0.2792241 0.2631422 0.2970862 0.2623879 0.2538017
##
                 17052
                           17053
                                     17054
                                               17055
                                                          17056
                                                                    17057
                                                                              17058
```

```
## Cluster 1 0.1874682 0.1874788 0.1861777 0.2071207 0.2485623 0.3040451 0.3752944
## Cluster 2 0.1601232 0.1991290 0.2332141 0.2180117 0.2268534 0.2422639 0.2870528
## Cluster 3 0.2255418 0.2286950 0.2289163 0.2328142 0.2302879 0.2658355 0.3336454
## Cluster 4 0.3148014 0.3577690 0.4056390 0.4375993 0.4438231 0.4763610 0.4684116
## Cluster 5 0.2386595 0.2531207 0.2723707 0.2643319 0.2675603 0.2663060 0.2914009
                 17059
                           17060
                                     17061
                                               17062
                                                          17063
                                                                    17064
##
## Cluster 1 0.4466260 0.5410119 0.6010491 0.6329032 0.6670265 0.7034801 0.7008024
## Cluster 2 0.3129589 0.3789971 0.4175161 0.4433695 0.4848182 0.4716100 0.4707419
## Cluster 3 0.3838539 0.4331929 0.5475660 0.5286894 0.6193021 0.7028298 0.7507986
## Cluster 4 0.5233249 0.5003971 0.5993394 0.5726679 0.5984007 0.6201769 0.6279025
  Cluster 5 0.3388664 0.4087241 0.4070431 0.4821983 0.4586940 0.4680862 0.5243879
                           17067
                                     17068
                                               17069
                                                          17070
                                                                              17072
                 17066
                                                                    17071
## Cluster 1 0.7416459 0.7388952 0.7023647 0.6345557 0.5796724 0.5465438 0.4997759
## Cluster 2 0.4716569 0.4889062 0.4404487 0.4308856 0.4174370 0.3785455 0.4702933
## Cluster 3 0.7411730 0.7201560 0.6943929 0.6611858 0.6388369 0.6049532 0.5820752
## Cluster 4 0.5581913 0.5282888 0.5487473 0.5351408 0.5245993 0.4992166 0.4953791
## Cluster 5 0.5851810 0.4754655 0.4593362 0.4319569 0.4490474 0.4698922 0.5137414
##
                 17073
                           17074
                                     17075
                                               17076
                                                          17077
                                                                    17078
                                                                              17079
## Cluster 1 0.4767838 0.5395623 0.6401963 0.6609085 0.6633448 0.6318780 0.5814098
## Cluster 2 0.4450997 0.3918328 0.3811701 0.4896334 0.5401818 0.5813519 0.5412199
## Cluster 3 0.6205291 0.5805390 0.5774865 0.5782865 0.5812723 0.5813121 0.5577830
## Cluster 4 0.5464621 0.6261336 0.5877437 0.5520253 0.5696101 0.5194946 0.4974982
## Cluster 5 0.4547716 0.4892198 0.4504353 0.4364397 0.4717112 0.4531164 0.5394612
                 17080
                           17081
                                     17082
                                               17083
                                                          17084
                                                                    17085
## Cluster 1 0.5870093 0.5802109 0.5779682 0.5437599 0.5611286 0.5643833 0.5312732
## Cluster 2 0.5663812 0.5567742 0.5685601 0.5569501 0.5769443 0.5880059 0.5760850
## Cluster 3 0.5389461 0.5331986 0.5441603 0.5622284 0.6010298 0.5837986 0.5964794
## Cluster 4 0.5208159 0.4736209 0.4618231 0.4394549 0.4638628 0.4539856 0.4352383
## Cluster 5 0.4652802 0.4783836 0.5146336 0.5473060 0.5973233 0.5847112 0.5810690
##
                 17087
                           17088
                                     17089
                                               17090
                                                          17091
                                                                    17092
                                                                              17093
## Cluster 1 0.4729430 0.3850199 0.3036671 0.2506989 0.2121061 0.1863714 0.1779748
## Cluster 2 0.5309296 0.4343783 0.3222522 0.2669736 0.2149326 0.2041408 0.1658710
## Cluster 3 0.5913177 0.5206340 0.4449560 0.3793844 0.3188426 0.2749759 0.2433546
## Cluster 4 0.4128700 0.3665523 0.3124838 0.2751877 0.2403466 0.2202744 0.2150144
  Cluster 5 0.6408103 0.6281810 0.5590086 0.4816509 0.4137931 0.3508405 0.3216897
                 17094
                           17095
                                     17096
                                               17097
                                                          17098
                                                                    17099
                                                                              17100
## Cluster 1 0.1716525 0.1668528 0.1674920 0.1597984 0.1652905 0.1742958 0.1760385
## Cluster 2 0.1578856 0.1507625 0.1529824 0.1484692 0.1418563 0.1625806 0.1805982
## Cluster 3 0.2267943 0.2103121 0.2068652 0.2003787 0.2086809 0.2073589 0.2240851
## Cluster 4 0.2197473 0.2191552 0.2029278 0.2059134 0.2225415 0.2434043 0.2766137
## Cluster 5 0.2741509 0.2666207 0.2629655 0.2741853 0.2478233 0.2590690 0.2386681
                 17101
                           17102
                                     17103
                                               17104
                                                          17105
                                                                    17106
                                                                              17107
## Cluster 1 0.1934310 0.2083740 0.2785000 0.3536817 0.4589085 0.4732493 0.5293660
## Cluster 2 0.2335660 0.2941349 0.3881026 0.3667889 0.3875132 0.3296540 0.3128035
## Cluster 3 0.2366369 0.2486057 0.2792936 0.3182099 0.3581461 0.3766199 0.4028681
## Cluster 4 0.3583069 0.4611444 0.6633863 0.6819134 0.6541877 0.5706137 0.4908231
## Cluster 5 0.2443319 0.2644267 0.2836164 0.3413017 0.3696034 0.3260172 0.3564526
                 17108
##
                           17109
                                     17110
                                               17111
                                                          17112
                                                                    17113
                                                                              17114
## Cluster 1 0.5192745 0.5356883 0.5079642 0.4913223 0.4770663 0.4915292 0.5094045
## Cluster 2 0.2726540 0.2768651 0.3119032 0.2931935 0.2619355 0.2496364 0.2514106
## Cluster 3 0.4170454 0.4219759 0.4843305 0.4905787 0.4892908 0.5131972 0.5514369
## Cluster 4 0.4399350 0.4453069 0.4293718 0.4245451 0.4424765 0.4118231 0.4141119
## Cluster 5 0.3588534 0.3340517 0.3748966 0.3579181 0.3710560 0.3402241 0.3607716
##
                 17115
                           17116
                                     17117
                                               17118
                                                          17119
                                                                    17120
                                                                              17121
```

```
## Cluster 1 0.5133607 0.4657294 0.4472480 0.4588687 0.4343276 0.4617493 0.5080279
## Cluster 2 0.2974282 0.2746246 0.2812229 0.2503724 0.2666774 0.3069384 0.2873167
## Cluster 3 0.5816184 0.5128894 0.5252851 0.5010014 0.5023972 0.5336511 0.5898241
## Cluster 4 0.4006643 0.4074260 0.3861913 0.4076715 0.4057365 0.4094585 0.5657365
## Cluster 5 0.3779224 0.3458491 0.3434569 0.3359397 0.3153578 0.3528922 0.3473664
                 17122
                           17123
                                               17125
                                                          17126
##
                                     17124
                                                                    17127
                                                                              17128
## Cluster 1 0.6097931 0.7417228 0.8535172 0.8133926 0.6659443 0.6490584 0.6545544
## Cluster 2 0.2948182 0.3758534 0.4890059 0.5783343 0.6164399 0.5984223 0.6067185
## Cluster 3 0.6834156 0.6891943 0.7211759 0.6560241 0.6217759 0.6297163 0.5801305
## Cluster 4 0.6588484 0.6450469 0.6502996 0.6838448 0.5989061 0.5892166 0.5415740
  Cluster 5 0.3428276 0.3807371 0.4642112 0.4547543 0.4845302 0.5433750 0.5148103
                           17130
                                               17132
                 17129
                                     17131
                                                          17133
                                                                    17134
                                                                              17135
## Cluster 1 0.5894337 0.5380000 0.5810000 0.5631552 0.6142639 0.5403064 0.5002732
## Cluster 2 0.6201613 0.5854135 0.6246246 0.5551730 0.5782815 0.6060938 0.5638768
## Cluster 3 0.5874667 0.5828567 0.6014809 0.6271603 0.6312312 0.6606411 0.6453135
## Cluster 4 0.5074801 0.4822816 0.4501336 0.4977906 0.5291552 0.4457292 0.4212671
## Cluster 5 0.4647629 0.5147026 0.4962888 0.4984526 0.5673578 0.6454052 0.6541293
##
                 17136
                           17137
                                     17138
                                               17139
                                                          17140
                                                                    17141
                                                                              17142
## Cluster 1 0.3908554 0.3024350 0.2370809 0.2076167 0.1908236 0.1781180 0.1671525
## Cluster 2 0.4095836 0.2985308 0.2485953 0.2122522 0.1886129 0.1604927 0.1524663
## Cluster 3 0.5634993 0.4857234 0.3996128 0.3215376 0.2788468 0.2427021 0.2199418
## Cluster 4 0.3789314 0.3031516 0.2746462 0.2431155 0.2103430 0.2031552 0.1975523
## Cluster 5 0.6362112 0.5672155 0.4792284 0.3837845 0.3372026 0.3063190 0.2720000
                 17143
                           17144
                                     17145
                                               17146
                                                          17147
                                                                    17148
                                                                              17149
## Cluster 1 0.1618660 0.1651194 0.1568263 0.1549748 0.1628793 0.1776008 0.2015305
## Cluster 2 0.1461496 0.1482610 0.1477419 0.1519765 0.1696716 0.1805806 0.2749062
## Cluster 3 0.2120709 0.2069447 0.2031177 0.1997021 0.2017787 0.2285674 0.2335787
## Cluster 4 0.2117040 0.2234152 0.2169314 0.2318195 0.2485090 0.3353141 0.4022635
## Cluster 5 0.2536509 0.2513621 0.2589957 0.2570474 0.2653060 0.2584914 0.2384052
##
                 17150
                           17151
                                     17152
                                               17153
                                                          17154
                                                                    17155
                                                                              17156
## Cluster 1 0.2087454 0.2945411 0.3888554 0.4311008 0.4897732 0.5233859 0.5396273
## Cluster 2 0.2832463 0.3798094 0.3473402 0.3973842 0.3321613 0.2800880 0.2771760
## Cluster 3 0.2628355 0.2853702 0.3129787 0.3360766 0.3944113 0.4159433 0.3963631
## Cluster 4 0.5036570 0.6999350 0.6516209 0.6421949 0.5697834 0.5040686 0.4425307
## Cluster 5 0.2669957 0.3088966 0.4018966 0.3952371 0.3898664 0.3302845 0.3273405
                                               17160
                 17157
                           17158
                                     17159
                                                          17161
                                                                    17162
                                                                              17163
## Cluster 1 0.4933501 0.4948793 0.4707851 0.4432401 0.4435995 0.5002122 0.5042573
## Cluster 2 0.2491173 0.2330909 0.2436716 0.2580850 0.2782874 0.2904252 0.3066862
## Cluster 3 0.4477121 0.4509943 0.4619957 0.5155816 0.5213078 0.5553645 0.5788624
## Cluster 4 0.3979603 0.4497581 0.3971697 0.4547256 0.4092274 0.4342094 0.4513646
## Cluster 5 0.3114957 0.3653922 0.3699397 0.3810776 0.3623750 0.4037845 0.3907414
                 17164
                           17165
                                               17167
                                                          17168
                                     17166
                                                                    17169
                                                                              17170
## Cluster 1 0.4419920 0.4192759 0.4449019 0.4488037 0.4703939 0.5165464 0.6550623
## Cluster 2 0.3002786 0.2833050 0.2470205 0.2286628 0.2788416 0.3233548 0.3434721
## Cluster 3 0.5184539 0.5507589 0.5310667 0.5568014 0.5589050 0.6234000 0.6656028
## Cluster 4 0.3910903 0.4049458 0.3767653 0.4015271 0.4571336 0.5412491 0.6150469
## Cluster 5 0.3743060 0.3816767 0.3978578 0.3974095 0.3823664 0.3833793 0.3744612
##
                 17171
                           17172
                                     17173
                                               17174
                                                          17175
                                                                    17176
                                                                              17177
## Cluster 1 0.8087679 0.8903806 0.8396048 0.7655915 0.7639284 0.6716989 0.6243302
## Cluster 2 0.4155249 0.4802434 0.5959531 0.6861085 0.7000762 0.7785894 0.7964545
## Cluster 3 0.6641163 0.6748355 0.7241986 0.6715007 0.6684411 0.6739248 0.6593348
## Cluster 4 0.6340975 0.6926859 0.6457906 0.6163863 0.5801697 0.5330975 0.5260830
## Cluster 5 0.3859397 0.4438362 0.4814526 0.4867802 0.5280819 0.4874310 0.5482931
##
                 17178
                           17179
                                     17180
                                               17181
                                                          17182
                                                                    17183
                                                                              17184
```

```
## Cluster 1 0.6564363 0.6486379 0.6160690 0.5885424 0.5519350 0.5158714 0.3955199
## Cluster 2 0.7674809 0.6841290 0.6944780 0.7315894 0.6961554 0.5994370 0.4487507
## Cluster 3 0.6389333 0.6249319 0.6734567 0.6768652 0.6705305 0.6581262 0.5613872
## Cluster 4 0.5148917 0.4872599 0.4740650 0.5013357 0.4654693 0.4317834 0.3741155
## Cluster 5 0.5921078 0.5806078 0.6062586 0.5986595 0.6165302 0.7257241 0.6465216
                 17185
                           17186
                                               17188
                                                          17189
                                                                    17190
##
                                     17187
                                                                              17191
## Cluster 1 0.3141857 0.2433249 0.2050981 0.1823806 0.1725119 0.1683130 0.1688912
## Cluster 2 0.3071261 0.2449531 0.2041144 0.1903431 0.1627067 0.1583754 0.1445337
## Cluster 3 0.4822355 0.3741064 0.3126766 0.2639376 0.2362567 0.2194312 0.2102028
## Cluster 4 0.3075271 0.2655776 0.2531697 0.2091805 0.2141697 0.1960866 0.2006209
  Cluster 5 0.5330560 0.4680086 0.4014612 0.3574698 0.2994138 0.2807241 0.2454052
                                                          17196
                           17193
                                     17194
                                               17195
                 17192
                                                                    17197
                                                                              17198
## Cluster 1 0.1662109 0.1586326 0.1663090 0.1700968 0.1721525 0.1900570 0.2206326
## Cluster 2 0.1506804 0.1395220 0.1503636 0.1778035 0.1855836 0.2677625 0.2956891
## Cluster 3 0.2046709 0.1975021 0.1927759 0.2007645 0.2112156 0.2353078 0.2430071
## Cluster 4 0.1862058 0.2125740 0.2268700 0.2574332 0.3208520 0.3767617 0.4829061
## Cluster 5 0.2391379 0.2711034 0.2359784 0.2510129 0.2270517 0.2419181 0.2777586
##
                 17199
                           17200
                                     17201
                                               17202
                                                          17203
                                                                    17204
                                                                              17205
## Cluster 1 0.2834615 0.3872772 0.4440637 0.4617401 0.5266711 0.5264483 0.5135769
## Cluster 2 0.3280528 0.3422082 0.3785718 0.2827449 0.2877214 0.2800704 0.2477889
## Cluster 3 0.3008014 0.3312454 0.3349858 0.3623390 0.4199915 0.4547943 0.4522879
## Cluster 4 0.6910830 0.6748845 0.6504296 0.5979206 0.4787798 0.4233502 0.3949639
## Cluster 5 0.3320905 0.3821293 0.3172198 0.3531207 0.3390560 0.3289828 0.3516466
                 17206
                           17207
                                     17208
                                               17209
                                                          17210
                                                                    17211
## Cluster 1 0.4855093 0.4470597 0.4569576 0.4626830 0.4996008 0.5086897 0.4698926
## Cluster 2 0.2529208 0.2997449 0.2673812 0.2976950 0.3000205 0.2878094 0.3059560
## Cluster 3 0.4843887 0.4986298 0.5137887 0.5049050 0.5422227 0.5316950 0.5361135
## Cluster 4 0.4314982 0.3779783 0.4227401 0.4439892 0.4674368 0.4233357 0.3700108
## Cluster 5 0.3850603 0.3354052 0.3137974 0.3515086 0.3838147 0.3695690 0.3834009
##
                 17213
                           17214
                                     17215
                                               17216
                                                          17217
                                                                    17218
                                                                              17219
## Cluster 1 0.4327653 0.4184151 0.4287759 0.4492520 0.4681671 0.5418090 0.7183607
## Cluster 2 0.2989971 0.2685132 0.2857566 0.2982815 0.3011760 0.3379296 0.4057683
## Cluster 3 0.5162312 0.5462809 0.5189220 0.5512950 0.6434596 0.7008553 0.6552837
## Cluster 4 0.3712635 0.3750903 0.3920578 0.4022635 0.5365668 0.5963032 0.6502238
  Cluster 5 0.3929181 0.3283621 0.3353060 0.3780129 0.4006078 0.3769698 0.3721853
                 17220
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                                                                    17225
                                                                              17226
## Cluster 1 0.8226088 0.7671485 0.6646220 0.6795027 0.6291764 0.6281034 0.5527268
## Cluster 2 0.4584047 0.5126100 0.5922933 0.6761290 0.6996393 0.7012639 0.6335806
## Cluster 3 0.6616681 0.6588865 0.6329617 0.6391972 0.6181830 0.6649291 0.6080128
## Cluster 4 0.6330036 0.5766895 0.5076065 0.5214765 0.5109025 0.5140036 0.5008592
## Cluster 5 0.4054655 0.4783362 0.4709698 0.5241207 0.4364828 0.4594181 0.4849483
                 17227
                           17228
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                                                          17231
                                                                    17232
                                                                              17233
## Cluster 1 0.5550424 0.6237944 0.6109005 0.5545345 0.4888660 0.3938064 0.3143979
## Cluster 2 0.5712170 0.6868856 0.6317038 0.6352845 0.5354106 0.4349150 0.3281496
## Cluster 3 0.6013092 0.6276241 0.6772567 0.6647348 0.6544170 0.5696936 0.4747745
## Cluster 4 0.4696426 0.4506606 0.5268267 0.4686282 0.4387726 0.3781264 0.3002347
## Cluster 5 0.5302543 0.5066250 0.5372802 0.5982371 0.6379181 0.6185216 0.5558750
                           17235
                                                          17238
##
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                                               17237
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## Cluster 1 0.2616313 0.2063422 0.1838873 0.1701857 0.1707944 0.1687719 0.1692003
## Cluster 2 0.2627243 0.2112786 0.2008856 0.1674047 0.1606569 0.1565132 0.1507243
## Cluster 3 0.4034113 0.3162596 0.2717291 0.2407759 0.2188752 0.2080738 0.2087234
## Cluster 4 0.2609567 0.2449531 0.2283032 0.2180433 0.1976282 0.2180578 0.2080794
## Cluster 5 0.4636983 0.4152586 0.3370345 0.2962888 0.2963578 0.2879914 0.2506422
##
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                                                          17245
                                                                    17246
                                                                              17247
```

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## Cluster 1 0.1634987 0.1663660 0.1679178 0.1795690 0.1907997 0.2116366 0.2843103
## Cluster 2 0.1509941 0.1587302 0.1658856 0.1932669 0.2669355 0.3337419 0.3804868
## Cluster 3 0.1982681 0.2055631 0.2129518 0.2103887 0.2491262 0.2731830 0.2876426
## Cluster 4 0.2122960 0.2294729 0.2406390 0.3173430 0.4553682 0.5623502 0.6864549
## Cluster 5 0.2744267 0.2364138 0.2339526 0.2364095 0.2318017 0.2841638 0.3098879
                 17248
                                     17250
                                                          17252
                                                                    17253
##
                           17249
                                               17251
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## Cluster 1 0.3845809 0.4386910 0.4953117 0.5072878 0.5402944 0.5080464 0.4716910
## Cluster 2 0.4320411 0.3807273 0.3263959 0.2932375 0.2734663 0.2445865 0.2909267
## Cluster 3 0.2986298 0.3176426 0.3917660 0.4294312 0.4387730 0.4241943 0.4145546
## Cluster 4 0.7290650 0.7135451 0.5494549 0.4750686 0.3951625 0.4031697 0.3412274
  Cluster 5 0.3594440 0.4045172 0.3237931 0.3107888 0.2910647 0.3261207 0.3558103
                           17256
                                     17257
                                               17258
                                                          17259
                 17255
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                                                                              17261
## Cluster 1 0.4622639 0.4529536 0.4413886 0.4826525 0.4994523 0.4689443 0.4528873
## Cluster 2 0.2888974 0.2808387 0.2793578 0.2780293 0.2974956 0.2759501 0.2747331
## Cluster 3 0.4793220 0.5092071 0.4969021 0.5290085 0.5568794 0.5422624 0.5235149
## Cluster 4 0.4166209 0.4313466 0.4424440 0.4221119 0.4060975 0.4419170 0.3777473
## Cluster 5 0.3615690 0.3486552 0.3721724 0.3556207 0.3762284 0.3528448 0.3459784
##
                 17262
                           17263
                                     17264
                                               17265
                                                          17266
                                                                    17267
                                                                              17268
## Cluster 1 0.4257467 0.4384403 0.4478992 0.4845371 0.6138077 0.7285650 0.8002387
## Cluster 2 0.2910029 0.2604487 0.2587155 0.2817771 0.3012845 0.4013666 0.4971642
## Cluster 3 0.5245277 0.5237830 0.5353064 0.6247277 0.6348142 0.6402312 0.7239532
## Cluster 4 0.3986318 0.4368845 0.4489458 0.4946787 0.6161516 0.6836534 0.7012888
## Cluster 5 0.3457716 0.3803750 0.3970560 0.3720474 0.3426207 0.3570862 0.3978190
                 17269
                           17270
                                     17271
                                               17272
                                                          17273
                                                                    17274
## Cluster 1 0.8604894 0.7579231 0.7166724 0.7048806 0.6572294 0.6297003 0.6555119
## Cluster 2 0.5333314 0.6638475 0.6234106 0.6787507 0.6627273 0.7116129 0.6902287
## Cluster 3 0.7339872 0.6901206 0.6704270 0.6959447 0.6520837 0.6540383 0.6869816
## Cluster 4 0.6066534 0.5799422 0.5217040 0.5410794 0.5103357 0.4807401 0.4869747
## Cluster 5 0.4803664 0.5386121 0.5017155 0.4637586 0.5241034 0.5328922 0.5580216
##
                 17276
                           17277
                                     17278
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                                                                              17282
## Cluster 1 0.6128249 0.5869788 0.5563714 0.4751419 0.3883568 0.3137838 0.2569271
## Cluster 2 0.6545601 0.6685337 0.6635689 0.5771408 0.4551848 0.3417361 0.2640557
## Cluster 3 0.6760525 0.6690865 0.6775830 0.6454397 0.5764950 0.4675163 0.3866936
## Cluster 4 0.4930361 0.4926282 0.4173574 0.4032166 0.3720036 0.3164260 0.2679567
## Cluster 5 0.5675991 0.6304397 0.6136724 0.6355905 0.6265733 0.5427845 0.4686940
                 17283
                                               17286
                                                          17287
                           17284
                                     17285
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                                                                              17289
## Cluster 1 0.2049708 0.1904310 0.1767905 0.1734098 0.1663263 0.1658501 0.1588501
## Cluster 2 0.2214194 0.1836422 0.1638094 0.1580528 0.1663636 0.1472170 0.1454721
## Cluster 3 0.3087206 0.2704539 0.2426936 0.2248596 0.2080865 0.2120270 0.1989149
## Cluster 4 0.2434657 0.2130325 0.2039639 0.1910000 0.1967545 0.1980830 0.2135307
## Cluster 5 0.3710000 0.2985216 0.2974526 0.2824741 0.2587931 0.2548405 0.2558922
                 17290
                           17291
                                     17292
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                                                          17294
                                                                    17295
                                                                              17296
## Cluster 1 0.1680199 0.1757347 0.1834602 0.1858979 0.2268793 0.2935225 0.4039390
## Cluster 2 0.1542933 0.1767449 0.1856422 0.2530850 0.3125249 0.3140557 0.3509443
## Cluster 3 0.2033532 0.2060567 0.2243220 0.2484000 0.2718128 0.2910837 0.3208383
## Cluster 4 0.2239061 0.2396498 0.3116968 0.3945957 0.5120975 0.6416245 0.7745126
## Cluster 5 0.2363664 0.2526552 0.2326940 0.2461853 0.2628319 0.3097328 0.3598147
                           17298
                                               17300
                                                          17301
##
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                                     17299
                                                                    17302
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## Cluster 1 0.4702493 0.4803581 0.5026578 0.5014363 0.4783249 0.4980716 0.4499297
## Cluster 2 0.3868592 0.3262111 0.3470821 0.3282845 0.3408299 0.3583666 0.3192815
## Cluster 3 0.3391163 0.3737404 0.4021830 0.4337291 0.5019716 0.5053603 0.4978440
## Cluster 4 0.6015704 0.5561444 0.4817978 0.4048520 0.4117545 0.4015090 0.4187040
## Cluster 5 0.3295776 0.3673966 0.3503017 0.3461724 0.3905733 0.3926638 0.3516336
##
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                                                                    17309
                                                                              17310
```

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## Cluster 1 0.4632706 0.4439894 0.4761154 0.4857387 0.4808740 0.5039098 0.4645013
## Cluster 2 0.2880029 0.3049853 0.3018240 0.2725308 0.2993343 0.3257595 0.3260411
## Cluster 3 0.4863021 0.5396014 0.5517915 0.6191773 0.6047787 0.5334993 0.5345390
## Cluster 4 0.4518592 0.4577473 0.4256968 0.4460614 0.4178231 0.3939422 0.4109747
## Cluster 5 0.3980862 0.3899009 0.3976983 0.3840733 0.3525560 0.3818836 0.3303750
                                                          17315
##
                 17311
                           17312
                                     17313
                                               17314
                                                                    17316
                                                                              17317
## Cluster 1 0.4328090 0.4415955 0.4972626 0.5684496 0.7438541 0.8541698 0.8160053
## Cluster 2 0.3062522 0.3297067 0.3085865 0.3850762 0.4567566 0.4991848 0.5447185
## Cluster 3 0.5279333 0.5573163 0.6135801 0.6451730 0.7154099 0.7210142 0.7081603
## Cluster 4 0.4458809 0.4615018 0.5526643 0.6208700 0.6618520 0.6096534 0.5807617
  Cluster 5 0.3625948 0.3802284 0.3587155 0.3813664 0.3702845 0.4244871 0.4933707
                           17319
                                     17320
                 17318
                                               17321
                                                          17322
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                                                                              17324
## Cluster 1 0.7470093 0.7358607 0.6831459 0.6691724 0.6509536 0.6414761 0.5985729
## Cluster 2 0.5571378 0.6726188 0.6975249 0.6481320 0.6317977 0.6723754 0.6474985
## Cluster 3 0.6532369 0.6761149 0.6416241 0.6442170 0.6479376 0.7128965 0.6883191
## Cluster 4 0.5158953 0.5295343 0.5045379 0.5255126 0.4470325 0.5046101 0.4787942
## Cluster 5 0.5168362 0.5210086 0.4830129 0.4705431 0.4980733 0.5209569 0.6081207
##
                 17325
                           17326
                                     17327
                                               17328
                                                          17329
                                                                    17330
                                                                              17331
## Cluster 1 0.6187613 0.5573833 0.4937878 0.4237175 0.3352294 0.2734310 0.2254523
## Cluster 2 0.6615015 0.5829795 0.5120880 0.4469560 0.3757566 0.2972727 0.2454751
## Cluster 3 0.7134723 0.6566922 0.6208128 0.5799915 0.4876241 0.4107631 0.3532440
## Cluster 4 0.4823827 0.4360108 0.4111047 0.3866895 0.3151913 0.2817653 0.2568592
## Cluster 5 0.6589095 0.6075259 0.6399612 0.6466897 0.5345733 0.4724052 0.4514483
                 17332
                           17333
                                     17334
                                               17335
                                                          17336
                                                                    17337
## Cluster 1 0.1932666 0.1912188 0.1809244 0.1730995 0.1697440 0.1717228 0.1652560
## Cluster 2 0.2060088 0.1800792 0.1676950 0.1627449 0.1526246 0.1657243 0.1592991
## Cluster 3 0.3012695 0.2632128 0.2335759 0.2393319 0.2124752 0.2103418 0.1992695
## Cluster 4 0.2342599 0.2168448 0.2122022 0.2071841 0.2083682 0.2276606 0.2393394
## Cluster 5 0.3618750 0.3445517 0.3072371 0.2651595 0.2555345 0.2686509 0.2550259
##
                 17339
                           17340
                                     17341
                                               17342
                                                          17343
                                                                    17344
                                                                              17345
## Cluster 1 0.1725438 0.1758753 0.1722175 0.1809297 0.2273859 0.2829867 0.3562507
## Cluster 2 0.1720499 0.1654164 0.1999971 0.2314223 0.2251642 0.2360147 0.2584370
## Cluster 3 0.1981929 0.2079759 0.2276340 0.2349362 0.2476085 0.2557191 0.2719362
## Cluster 4 0.2368051 0.2766209 0.3317870 0.3879783 0.5588375 0.5838989 0.5556498
## Cluster 5 0.2522543 0.2320991 0.2570991 0.2588017 0.2522069 0.2658793 0.2780560
                           17347
                                     17348
                                               17349
                                                          17350
                 17346
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## Cluster 1 0.4476790 0.5530066 0.6047599 0.6069695 0.6056446 0.6181578 0.5855172
## Cluster 2 0.3058123 0.3447126 0.4183196 0.4887801 0.4849443 0.4397537 0.4300850
## Cluster 3 0.3517418 0.3879092 0.4596539 0.5022482 0.5459986 0.5829645 0.6166965
## Cluster 4 0.5462924 0.5570722 0.5661119 0.5524693 0.5449928 0.5218159 0.5662130
## Cluster 5 0.2917198 0.3755216 0.4250086 0.4622457 0.4444828 0.4551466 0.4568017
                 17353
                           17354
                                     17355
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                                                          17357
                                                                    17358
                                                                              17359
## Cluster 1 0.6075093 0.6455862 0.6381194 0.6057228 0.5572692 0.5790292 0.6105915
## Cluster 2 0.4376569 0.4849472 0.4322375 0.4830117 0.4368211 0.4067126 0.3852610
## Cluster 3 0.6649915 0.7126142 0.6770142 0.6949220 0.6845433 0.6065574 0.6350993
## Cluster 4 0.5824729 0.5609025 0.5700505 0.5461588 0.5162202 0.5020650 0.5355704
## Cluster 5 0.4863233 0.5451897 0.4623879 0.4741509 0.5068276 0.5145517 0.4289828
                                                          17364
##
                 17360
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                                                                    17365
                                                                              17366
## Cluster 1 0.5698992 0.6003594 0.6471790 0.7325146 0.8247772 0.8479682 0.7698196
## Cluster 2 0.4396891 0.5242111 0.5063226 0.5045718 0.5927038 0.6768065 0.7019326
## Cluster 3 0.6826851 0.7050184 0.7134865 0.7323376 0.7224794 0.6986681 0.7198511
## Cluster 4 0.5439928 0.6124368 0.6769097 0.6676787 0.6377401 0.5597762 0.5795379
## Cluster 5 0.4603017 0.5106681 0.5025388 0.4991681 0.5574784 0.5907069 0.6335172
##
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                                                                    17372
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```

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## Cluster 1 0.7384735 0.6954271 0.6934337 0.6515902 0.6045093 0.5955172 0.5787427
## Cluster 2 0.7686276 0.7240205 0.6545953 0.6179971 0.6196598 0.6028915 0.5989150
## Cluster 3 0.7365532 0.6516681 0.6680270 0.6411390 0.6463390 0.6720411 0.6391390
## Cluster 4 0.5716751 0.5504621 0.5043249 0.4898736 0.4642383 0.4881155 0.4925632
## Cluster 5 0.5768836 0.5155733 0.5959095 0.5660216 0.6170991 0.5640776 0.5726034
                                                          17378
##
                 17374
                           17375
                                     17376
                                               17377
                                                                    17379
                                                                              17380
## Cluster 1 0.5182626 0.4982586 0.4204496 0.3580557 0.2838979 0.2528767 0.2088236
## Cluster 2 0.5814839 0.5201848 0.4434663 0.3684223 0.3195161 0.2565161 0.2418065
## Cluster 3 0.6080823 0.5930539 0.5501730 0.4777291 0.4223589 0.3601887 0.3232326
## Cluster 4 0.4686859 0.4270433 0.3875632 0.3253935 0.2892202 0.2584224 0.2451625
  Cluster 5 0.6070647 0.6366724 0.6160388 0.5065259 0.5062112 0.4811509 0.4183448
                                               17384
                 17381
                           17382
                                     17383
                                                          17385
                                                                    17386
                                                                              17387
## Cluster 1 0.1958714 0.1844377 0.1816114 0.1769934 0.1663554 0.1627268 0.1720716
## Cluster 2 0.2056745 0.1807331 0.1758416 0.1712551 0.1584751 0.1617889 0.1787625
## Cluster 3 0.2818652 0.2552965 0.2330610 0.2258582 0.2123986 0.1951149 0.2061305
## Cluster 4 0.2363177 0.2082202 0.2185054 0.2177581 0.2116715 0.2350505 0.2436895
## Cluster 5 0.3791638 0.3141724 0.2745388 0.2470388 0.2625647 0.2599698 0.2660690
##
                 17388
                           17389
                                     17390
                                               17391
                                                          17392
                                                                    17393
                                                                              17394
## Cluster 1 0.1723528 0.1791711 0.1752759 0.2046008 0.2509072 0.3149430 0.4618223
## Cluster 2 0.1688886 0.1893021 0.2000088 0.2301613 0.2293666 0.2250616 0.3230645
## Cluster 3 0.2072298 0.2249461 0.2302610 0.2178397 0.2465901 0.2837064 0.3477348
## Cluster 4 0.2920794 0.3580469 0.3708339 0.4315451 0.4815235 0.5149495 0.5727365
## Cluster 5 0.2456293 0.2185733 0.2357759 0.2424828 0.2670560 0.2826724 0.3039483
                 17395
                           17396
                                     17397
                                               17398
                                                          17399
## Cluster 1 0.5538912 0.5860398 0.6488674 0.7120703 0.7295610 0.6881472 0.7101684
## Cluster 2 0.3807097 0.4551818 0.4821320 0.5002845 0.4830352 0.4865982 0.4678856
## Cluster 3 0.4068213 0.4869376 0.5273603 0.5662241 0.6260511 0.6625645 0.7398312
## Cluster 4 0.5469314 0.5733394 0.6228664 0.7128736 0.5537581 0.6501733 0.5840686
## Cluster 5 0.3844612 0.3958491 0.4122974 0.4627845 0.4792759 0.4542371 0.4464612
##
                 17402
                           17403
                                     17404
                                               17405
                                                          17406
                                                                    17407
                                                                              17408
## Cluster 1 0.7203249 0.7149191 0.6759125 0.6231459 0.6006141 0.6044297 0.5716737
## Cluster 2 0.4551554 0.4834985 0.4381818 0.4242757 0.4317683 0.4382903 0.4321935
## Cluster 3 0.7531716 0.7845489 0.7299745 0.7072156 0.6787050 0.6727901 0.6445745
## Cluster 4 0.6211083 0.5919422 0.5393502 0.4970830 0.4299747 0.4656137 0.5029531
## Cluster 5 0.4882974 0.5035948 0.5100216 0.4492198 0.4446724 0.4762629 0.4687802
                                     17411
                                               17412
                                                          17413
                 17409
                           17410
                                                                    17414
                                                                              17415
## Cluster 1 0.5700610 0.5918568 0.6594244 0.6888316 0.7022029 0.6736180 0.6753103
## Cluster 2 0.4330147 0.4325220 0.4262463 0.5037185 0.6049736 0.6171349 0.6858416
## Cluster 3 0.6441702 0.6098752 0.6005617 0.6579759 0.6627617 0.6191050 0.6097149
## Cluster 4 0.5823177 0.5578195 0.6041444 0.5790650 0.5982419 0.5142310 0.4618231
## Cluster 5 0.4923319 0.4606379 0.4565733 0.4924267 0.4916767 0.4907845 0.5042586
                 17416
                           17417
                                     17418
                                               17419
                                                          17420
                                                                              17422
                                                                    17421
## Cluster 1 0.6077745 0.5533674 0.5881618 0.5674907 0.5507188 0.5545729 0.5690955
## Cluster 2 0.6617625 0.6434076 0.6153607 0.5375425 0.5722581 0.6160704 0.6541114
## Cluster 3 0.5511262 0.5897418 0.5642738 0.5500582 0.5494908 0.5822496 0.6224567
## Cluster 4 0.5134910 0.5146282 0.4428448 0.4416643 0.4165632 0.4722166 0.4838087
## Cluster 5 0.4118707 0.4537500 0.4904526 0.4743491 0.4889569 0.5294655 0.6312759
                           17424
                                     17425
                                               17426
##
                 17423
                                                          17427
                                                                    17428
                                                                              17429
## Cluster 1 0.4899682 0.4141233 0.3036233 0.2536525 0.2072135 0.1825703 0.1702984
## Cluster 2 0.5882522 0.4664487 0.3380528 0.2545308 0.2122815 0.1938211 0.1767771
## Cluster 3 0.5812298 0.5206128 0.4637603 0.3783986 0.3151319 0.2822241 0.2614014
## Cluster 4 0.4478628 0.3528339 0.3039170 0.2569567 0.2179314 0.2130650 0.2174368
## Cluster 5 0.7246681 0.6454655 0.5812586 0.4662069 0.4325129 0.3475733 0.2940043
##
                 17430
                           17431
                                     17432
                                               17433
                                                          17434
                                                                    17435
                                                                              17436
```

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## Cluster 1 0.1660637 0.1568408 0.1639377 0.1586844 0.1569218 0.1652573 0.1773064
## Cluster 2 0.1658123 0.1615073 0.1562405 0.1442141 0.1508739 0.1631349 0.1868534
## Cluster 3 0.2409773 0.2280525 0.2081773 0.2028922 0.1932113 0.2004624 0.2115716
## Cluster 4 0.2236173 0.1961805 0.1907292 0.1961372 0.2249242 0.2431227 0.2830758
## Cluster 5 0.3094181 0.2854569 0.2238750 0.2276983 0.2280129 0.2446164 0.2395862
                           17438
                                     17439
                                                         17441
##
                 17437
                                               17440
                                                                    17442
## Cluster 1 0.1974589 0.2256379 0.2895013 0.3563780 0.4044310 0.5087095 0.4832639
## Cluster 2 0.2560674 0.2917918 0.3578622 0.3812287 0.3847713 0.3427742 0.3235630
## Cluster 3 0.2374440 0.2399943 0.2601674 0.3054468 0.3272184 0.3627915 0.4092539
## Cluster 4 0.3545668 0.5042635 0.6982058 0.6489206 0.5628484 0.5724657 0.4743177
  Cluster 5 0.2232629 0.2501595 0.2969483 0.3335172 0.3662155 0.3816681 0.3285647
                 17444
                           17445
                                     17446
                                               17447
                                                         17448
                                                                    17449
                                                                              17450
## Cluster 1 0.5323289 0.4813966 0.4710345 0.4615915 0.4722029 0.4581963 0.4736419
## Cluster 2 0.3605894 0.3182815 0.3334751 0.3221232 0.2786569 0.2709619 0.2871437
## Cluster 3 0.4196411 0.4426184 0.4467887 0.4898709 0.4748383 0.5447645 0.5446638
## Cluster 4 0.4431119 0.3266931 0.3934477 0.4335018 0.4054513 0.4547653 0.3967004
## Cluster 5 0.3566509 0.3839569 0.3489741 0.3442974 0.3473664 0.3414397 0.3705862
##
                 17451
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## Cluster 1 0.5050080 0.4630942 0.4104337 0.4447334 0.4199297 0.4399072 0.4814284
## Cluster 2 0.3085689 0.2937801 0.3001378 0.3025894 0.2912170 0.2586804 0.3003490
## Cluster 3 0.5633830 0.5363404 0.5143830 0.5229106 0.5598142 0.5602411 0.6275957
## Cluster 4 0.4277292 0.4031011 0.4045993 0.3923935 0.4047076 0.4206390 0.5228953
## Cluster 5 0.3666983 0.3314052 0.3318707 0.3393319 0.3128405 0.3456509 0.3824612
                 17458
                           17459
                                     17460
                                               17461
                                                          17462
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## Cluster 1 0.5487069 0.7215305 0.7974562 0.7659854 0.7277440 0.7053767 0.6407334
## Cluster 2 0.3618475 0.4421056 0.5110499 0.5755396 0.5838299 0.6668534 0.7010557
## Cluster 3 0.6889560 0.6848681 0.7075574 0.6427943 0.6193858 0.6260255 0.5970284
## Cluster 4 0.6131877 0.6984765 0.6284188 0.5728014 0.5488989 0.5261588 0.5178592
## Cluster 5 0.4164095 0.4768836 0.4076724 0.4482888 0.4902241 0.4954569 0.5135345
##
                 17465
                           17466
                                     17467
                                               17468
                                                         17469
                                                                    17470
                                                                              17471
## Cluster 1 0.6076844 0.5923687 0.6027772 0.5923117 0.6051154 0.5946830 0.4918899
## Cluster 2 0.7003138 0.6516598 0.6086100 0.6979062 0.7311760 0.6579883 0.5761026
## Cluster 3 0.5962723 0.5796369 0.6227887 0.6522809 0.6741702 0.6722468 0.6457532
## Cluster 4 0.5049531 0.5456209 0.4471480 0.4919242 0.5399675 0.4574621 0.4033863
  Cluster 5 0.4481207 0.4513103 0.4750474 0.4893664 0.5932716 0.6697888 0.6835560
                 17472
                                     17474
                                               17475
                                                         17476
                           17473
                                                                    17477
                                                                              17478
## Cluster 1 0.4092029 0.3145902 0.2686565 0.2115995 0.1856326 0.1725424 0.1646684
## Cluster 2 0.4761525 0.3543871 0.2796129 0.2162141 0.1883255 0.1685748 0.1675044
## Cluster 3 0.5693887 0.4435617 0.3767376 0.3100950 0.2660426 0.2404922 0.2206823
## Cluster 4 0.3574693 0.3053899 0.2533249 0.2427545 0.2190108 0.2151444 0.2121733
## Cluster 5 0.6051034 0.5354138 0.4708578 0.3768448 0.3332759 0.3079483 0.2658922
                 17479
                           17480
                                     17481
                                               17482
                                                         17483
                                                                    17484
                                                                              17485
## Cluster 1 0.1638183 0.1633130 0.1580239 0.1607401 0.1688607 0.1773501 0.2011180
## Cluster 2 0.1561906 0.1403050 0.1359765 0.1438680 0.1773490 0.1904164 0.2426833
## Cluster 3 0.2093645 0.2085106 0.2043574 0.1957291 0.2017305 0.2236085 0.2381135
## Cluster 4 0.2302455 0.2009134 0.2229639 0.2465740 0.2654188 0.3291444 0.3804982
## Cluster 5 0.2399009 0.2215474 0.2198836 0.2239483 0.2369353 0.2366940 0.2442500
                                                          17490
##
                 17486
                           17487
                                     17488
                                               17489
                                                                    17491
                                                                              17492
## Cluster 1 0.2390703 0.3002666 0.3932798 0.4643289 0.4872878 0.5198581 0.4914629
## Cluster 2 0.2874575 0.3245982 0.4075924 0.3867625 0.3313109 0.2832229 0.2835220
## Cluster 3 0.2645574 0.2861177 0.2869021 0.3612170 0.3918270 0.3883702 0.4423773
## Cluster 4 0.4961552 0.6532130 0.6323249 0.6189603 0.5895054 0.5378412 0.4701155
## Cluster 5 0.2458405 0.3176466 0.3655388 0.3755905 0.3773405 0.2822198 0.2971681
##
                 17493
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                                               17496
                                                         17497
                                                                    17498
                                                                              17499
```

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## Cluster 1 0.4684005 0.4733223 0.4998263 0.4706499 0.5054801 0.5202798 0.5189947
## Cluster 2 0.2704370 0.2679326 0.2784516 0.2937625 0.2685161 0.2934633 0.3011144
## Cluster 3 0.4508496 0.4676170 0.4894837 0.5258340 0.4780227 0.5176099 0.5898099
## Cluster 4 0.4343105 0.3917004 0.4162960 0.4028881 0.4073105 0.4150217 0.4360830
## Cluster 5 0.3268276 0.3446853 0.3477198 0.3417026 0.3978922 0.3944181 0.3817112
                 17500
                                                          17504
##
                           17501
                                     17502
                                               17503
                                                                    17505
                                                                              17506
## Cluster 1 0.4585491 0.4833488 0.4655981 0.4664430 0.4667599 0.5118793 0.6546379
## Cluster 2 0.3018974 0.2859912 0.3138211 0.2897009 0.2809824 0.3015689 0.3245484
## Cluster 3 0.5827376 0.5248099 0.5578383 0.5724241 0.6142553 0.6766312 0.7284794
## Cluster 4 0.4120686 0.4094188 0.3603394 0.4309964 0.5004801 0.5903249 0.6668556
  Cluster 5 0.4054483 0.3830000 0.3478836 0.3256767 0.3442155 0.3321379 0.3566983
                           17508
                                     17509
                                               17510
                 17507
                                                          17511
                                                                    17512
                                                                              17513
## Cluster 1 0.8326883 0.8599496 0.8716737 0.7622613 0.7150199 0.7097480 0.6069987
## Cluster 2 0.3743050 0.4220352 0.5825132 0.6578182 0.7271789 0.7179707 0.7184076
## Cluster 3 0.7466071 0.7427362 0.7469957 0.7233702 0.7212014 0.6730128 0.6697333
## Cluster 4 0.7798592 0.7009458 0.6130325 0.5678303 0.5296426 0.5918339 0.5386895
## Cluster 5 0.4342198 0.4834871 0.5344741 0.5453147 0.4998879 0.4569871 0.4751552
##
                 17514
                           17515
                                     17516
                                               17517
                                                          17518
                                                                    17519
                                                                              17520
## Cluster 1 0.6115703 0.6634987 0.6367016 0.6152414 0.5558156 0.4753103 0.3900292
## Cluster 2 0.7019150 0.7584575 0.7762111 0.7630762 0.6719619 0.5567185 0.4678534
## Cluster 3 0.6547589 0.6882057 0.7171603 0.7102837 0.7228809 0.6676709 0.5670965
## Cluster 4 0.5250217 0.5218303 0.4923755 0.4404079 0.4573791 0.4091877 0.3283755
## Cluster 5 0.4963190 0.5078276 0.5565431 0.6642155 0.6301336 0.6637371 0.6686595
                 17521
                           17522
                                     17523
                                               17524
                                                          17525
                                                                    17526
## Cluster 1 0.3072454 0.2497706 0.2089231 0.1803886 0.1752546 0.1719947 0.1621578
## Cluster 2 0.3654868 0.2738299 0.2352669 0.1962933 0.1763959 0.1589443 0.1596188
## Cluster 3 0.4832156 0.3856227 0.3115674 0.2731688 0.2471730 0.2256426 0.2175078
## Cluster 4 0.2974657 0.2642455 0.2388809 0.2073357 0.2132238 0.2065415 0.2195271
## Cluster 5 0.5222069 0.4818966 0.4072026 0.3381466 0.3142328 0.2779698 0.2405603
##
                 17528
                           17529
                                     17530
                                               17531
                                                          17532
                                                                    17533
                                                                              17534
## Cluster 1 0.1652958 0.1580942 0.1624231 0.1659934 0.1844615 0.1839178 0.2068011
## Cluster 2 0.1488739 0.1422170 0.1596100 0.1793490 0.1856100 0.2564897 0.3143226
## Cluster 3 0.2118837 0.2004312 0.1998567 0.2097404 0.2309887 0.2589348 0.2638851
## Cluster 4 0.1960253 0.2178664 0.2332780 0.2475668 0.2995090 0.4103032 0.4984585
## Cluster 5 0.2365474 0.2338707 0.2395474 0.2330000 0.2194353 0.2360129 0.2464871
                                     17537
                                               17538
                                                          17539
                 17535
                           17536
                                                                    17540
                                                                              17541
## Cluster 1 0.2809735 0.3861048 0.4316976 0.4893435 0.5031008 0.5650186 0.5332228
## Cluster 2 0.3626452 0.3848974 0.3625279 0.2983490 0.3037625 0.2745543 0.2530147
## Cluster 3 0.2682624 0.2980057 0.3282440 0.3569773 0.4244879 0.4397674 0.4538837
## Cluster 4 0.6544910 0.6206173 0.6114404 0.4978809 0.4773141 0.4120722 0.3752744
## Cluster 5 0.2978362 0.3663147 0.3503017 0.3477112 0.3503017 0.3269181 0.3406293
                 17542
                           17543
                                     17544
                                               17545
                                                          17546
                                                                    17547
                                                                              17548
## Cluster 1 0.5167255 0.4623064 0.4618568 0.4951565 0.5543912 0.5165756 0.5029430
## Cluster 2 0.2663284 0.2506569 0.2663754 0.2678152 0.2613343 0.2969501 0.2763109
## Cluster 3 0.4552496 0.4865702 0.4934667 0.5291887 0.5565617 0.5795078 0.5416837
## Cluster 4 0.4150144 0.4603105 0.4027978 0.4258014 0.4783971 0.4982563 0.4286931
## Cluster 5 0.3557198 0.3270043 0.3488750 0.3323276 0.3752457 0.3760991 0.3410690
                           17550
                                     17551
##
                 17549
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                                                          17553
                                                                    17554
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## Cluster 1 0.4650451 0.4307706 0.4494589 0.4534164 0.4901724 0.5634907 0.7600172
## Cluster 2 0.2842698 0.2693167 0.2613402 0.2894340 0.2780469 0.3632141 0.4220938
## Cluster 3 0.5444241 0.5698908 0.6161589 0.6070723 0.6430582 0.6616922 0.6495574
## Cluster 4 0.4014440 0.4263466 0.4503466 0.4499747 0.5346643 0.6848339 0.6653899
## Cluster 5 0.3812543 0.3680302 0.3316724 0.4011897 0.3826897 0.3602457 0.3988966
##
                 17556
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                                                                    17561
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```

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## Cluster 1 0.8225557 0.7703912 0.7359191 0.7241472 0.6730371 0.6722905 0.6541737
## Cluster 2 0.5357331 0.5683548 0.6201173 0.6961056 0.7551320 0.7270117 0.6551848
## Cluster 3 0.6929078 0.7075929 0.6769518 0.6368298 0.6577929 0.6190184 0.6069972
## Cluster 4 0.6334729 0.5673249 0.5293791 0.5074404 0.5290108 0.5054982 0.5059314
## Cluster 5 0.4397759 0.4655345 0.4765905 0.4974224 0.4671466 0.4906121 0.4789741
                           17564
                                                                    17568
##
                 17563
                                     17565
                                               17566
                                                          17567
                                                                              17569
## Cluster 1 0.6527944 0.6095557 0.6229894 0.5543634 0.5001844 0.4192387 0.3370279
## Cluster 2 0.6860909 0.6633226 0.7454223 0.7159853 0.6183402 0.5005337 0.3659531
## Cluster 3 0.6449376 0.6679475 0.6799858 0.6782057 0.6534440 0.5882411 0.4876085
## Cluster 4 0.4986101 0.4527148 0.4558123 0.4611480 0.4088159 0.3679458 0.3018917
  Cluster 5 0.5676379 0.5929569 0.6301078 0.6456164 0.6405431 0.6225345 0.5660259
                           17571
                                     17572
                                               17573
                 17570
                                                          17574
                                                                    17575
                                                                              17576
## Cluster 1 0.2523714 0.2141485 0.1822599 0.1814642 0.1743156 0.1711074 0.1717175
## Cluster 2 0.2847302 0.2390587 0.2214604 0.1834399 0.1689326 0.1575396 0.1490205
## Cluster 3 0.4079574 0.3350085 0.2883617 0.2590227 0.2259972 0.2175660 0.2056567
## Cluster 4 0.2758123 0.2426173 0.2244079 0.2133141 0.2064513 0.2060866 0.1948881
## Cluster 5 0.4883017 0.3970431 0.3245474 0.3061293 0.2672716 0.2594397 0.2341595
##
                 17577
                           17578
                                     17579
                                               17580
                                                          17581
                                                                    17582
                                                                              17583
## Cluster 1 0.1635756 0.1610504 0.1751141 0.1805610 0.2070172 0.2232546 0.2969191
## Cluster 2 0.1463109 0.1513724 0.1658651 0.1865660 0.2269150 0.2888798 0.3862757
## Cluster 3 0.1992993 0.2029376 0.2098809 0.2163064 0.2453716 0.2638993 0.2800652
## Cluster 4 0.1989856 0.2348809 0.2435379 0.2929675 0.3695921 0.5430433 0.6303899
## Cluster 5 0.2293147 0.2370086 0.2322888 0.2468534 0.2383491 0.2724526 0.3069483
                 17584
                           17585
                                     17586
                                               17587
                                                          17588
                                                                    17589
## Cluster 1 0.3593276 0.4599058 0.5138660 0.5395875 0.5290106 0.5069204 0.5136671
## Cluster 2 0.3891877 0.4025748 0.3279560 0.2952141 0.2900381 0.2943372 0.2693666
## Cluster 3 0.3214312 0.3571816 0.3948340 0.4196681 0.4301929 0.4315858 0.4701617
## Cluster 4 0.6869386 0.6290758 0.5422347 0.4770866 0.4244838 0.4201805 0.4302960
## Cluster 5 0.3548491 0.3514569 0.3958879 0.3994828 0.3376422 0.3804612 0.3536207
##
                 17591
                           17592
                                     17593
                                               17594
                                                          17595
                                                                    17596
                                                                              17597
## Cluster 1 0.5025981 0.4933236 0.4734602 0.5021194 0.4772798 0.4407149 0.4480491
## Cluster 2 0.2623021 0.2730733 0.2779765 0.2978974 0.2951760 0.2968123 0.3130528
## Cluster 3 0.4694014 0.5246170 0.5398426 0.5644865 0.5773404 0.5433348 0.5156922
## Cluster 4 0.4043394 0.4505560 0.4367509 0.4543971 0.4517004 0.4683069 0.4395090
## Cluster 5 0.3538621 0.3991595 0.3730259 0.3938836 0.3924871 0.3588448 0.3450216
                                     17600
                                               17601
                                                          17602
                 17598
                           17599
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## Cluster 1 0.4569204 0.4686671 0.4501127 0.5229390 0.6339682 0.7776167 0.8260623
## Cluster 2 0.2780176 0.2313724 0.2588094 0.2462258 0.3309032 0.4021906 0.4463460
## Cluster 3 0.5331787 0.5535461 0.5804426 0.6261702 0.6820000 0.7012624 0.6803007
## Cluster 4 0.3984838 0.4441661 0.4537112 0.4919314 0.6028628 0.6229206 0.5907762
## Cluster 5 0.3574224 0.3599828 0.3590948 0.3754655 0.3826164 0.4206121 0.4973922
                 17605
                           17606
                                     17607
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                                                          17609
                                                                    17610
                                                                              17611
## Cluster 1 0.8183926 0.7480119 0.7802984 0.7277003 0.6607666 0.6328090 0.6401008
## Cluster 2 0.5642639 0.6326716 0.7711760 0.7410235 0.7427566 0.6641026 0.6789179
## Cluster 3 0.6795702 0.6488043 0.6600241 0.6595688 0.6525319 0.6480270 0.7033518
## Cluster 4 0.5747365 0.5659170 0.5877798 0.5603899 0.4600830 0.5219242 0.5803935
## Cluster 5 0.5441293 0.5646767 0.5180474 0.4715431 0.5168836 0.5290086 0.5197888
                           17613
##
                 17612
                                     17614
                                               17615
                                                          17616
                                                                    17617
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## Cluster 1 0.6422334 0.6001804 0.5288727 0.4486101 0.3877228 0.3064761 0.2495836
## Cluster 2 0.7040880 0.7714604 0.6647067 0.5596188 0.4271202 0.3233548 0.2545455
## Cluster 3 0.6931191 0.7276511 0.6675220 0.6500199 0.5510071 0.4494142 0.3755858
## Cluster 4 0.5268881 0.4944043 0.4683357 0.4507509 0.3511227 0.2936895 0.2423032
## Cluster 5 0.5810647 0.6259353 0.6512284 0.6625129 0.6352026 0.5534052 0.4550129
##
                 17619
                           17620
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```

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## Cluster 1 0.2118316 0.1883263 0.1812865 0.1740504 0.1680080 0.1655146 0.1649111
## Cluster 2 0.2064692 0.1952317 0.1732581 0.1620850 0.1660176 0.1624545 0.1494633
## Cluster 3 0.3225702 0.2798624 0.2456454 0.2245475 0.2163816 0.2093745 0.2025915
## Cluster 4 0.2248195 0.2108845 0.2015812 0.1810036 0.2004332 0.1829639 0.1941986
## Cluster 5 0.4206681 0.3597543 0.3025647 0.2789914 0.2642586 0.2442974 0.2475431
                 17626
                           17627
                                     17628
                                               17629
                                                         17630
##
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## Cluster 1 0.1587573 0.1628992 0.1776499 0.2060557 0.2175597 0.2803276 0.3823024
## Cluster 2 0.1507419 0.1795718 0.1995191 0.2620557 0.3044106 0.3546540 0.3952023
## Cluster 3 0.1941759 0.1976837 0.2150511 0.2405064 0.2493645 0.2880525 0.3019234
## Cluster 4 0.2148231 0.2259422 0.2684007 0.3944838 0.5315848 0.6441733 0.6025993
  Cluster 5 0.2512629 0.2390603 0.2435560 0.2685560 0.2879871 0.2887284 0.3405000
                 17633
                           17634
                                     17635
                                               17636
                                                         17637
                                                                    17638
                                                                              17639
## Cluster 1 0.4409045 0.5009642 0.5086897 0.5422294 0.5190703 0.5324947 0.5236167
## Cluster 2 0.3410733 0.3248592 0.3321965 0.3243079 0.3223666 0.3419208 0.3220792
## Cluster 3 0.3334298 0.3762794 0.3859291 0.4120426 0.4565135 0.4842085 0.5071660
## Cluster 4 0.6067220 0.5106282 0.4762888 0.4798845 0.4039639 0.4119892 0.4298592
## Cluster 5 0.3651940 0.4106466 0.3904138 0.4020388 0.3609871 0.4081552 0.4016638
##
                 17640
                           17641
                                     17642
                                               17643
                                                         17644
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                                                                              17646
## Cluster 1 0.5157082 0.4823767 0.5308395 0.4867228 0.4715477 0.4434469 0.4355836
## Cluster 2 0.3195894 0.3161173 0.2823284 0.3219238 0.2953021 0.3201965 0.2851232
## Cluster 3 0.5515759 0.5280128 0.5561574 0.5769447 0.5647305 0.5559135 0.5131872
## Cluster 4 0.4220578 0.4339206 0.4484982 0.4182238 0.3963357 0.3667617 0.3792274
## Cluster 5 0.3919828 0.3297759 0.4566207 0.3983103 0.3985948 0.3853060 0.3465474
                 17647
                           17648
                                     17649
                                               17650
                                                         17651
                                                                    17652
## Cluster 1 0.4574881 0.4631592 0.5132546 0.6284562 0.7319602 0.7736538 0.7600836
## Cluster 2 0.2935425 0.3286452 0.3529501 0.3502287 0.3934545 0.4973636 0.5367273
## Cluster 3 0.5517092 0.5896298 0.5805518 0.6303915 0.6203277 0.6728723 0.6837121
## Cluster 4 0.4242527 0.4765379 0.4913213 0.6209639 0.5779206 0.5321119 0.5357906
## Cluster 5 0.3527069 0.3651379 0.3984741 0.3527371 0.3708233 0.4535474 0.4957845
##
                 17654
                           17655
                                     17656
                                               17657
                                                         17658
                                                                    17659
                                                                              17660
## Cluster 1 0.7072308 0.6871260 0.6451207 0.6081154 0.6036300 0.6270729 0.6212785
## Cluster 2 0.5891378 0.6634956 0.6182287 0.6078563 0.5213343 0.5895601 0.6302845
## Cluster 3 0.6402525 0.6419234 0.6784454 0.6301206 0.6024780 0.6456809 0.6239504
## Cluster 4 0.5185415 0.5072527 0.4825993 0.4560181 0.4544729 0.4724477 0.4937690
## Cluster 5 0.5291810 0.5092543 0.4903276 0.5123664 0.4406121 0.4503190 0.4987629
                                     17663
                           17662
                                               17664
                                                         17665
                 17661
                                                                    17666
                                                                              17667
## Cluster 1 0.6327653 0.5592188 0.4940849 0.4337918 0.3645729 0.2829987 0.2412958
## Cluster 2 0.6485073 0.6609501 0.5590088 0.4351613 0.3689003 0.3088094 0.2409413
## Cluster 3 0.6548028 0.6261844 0.6296979 0.5755858 0.4921858 0.4197177 0.3519475
## Cluster 4 0.4537690 0.4216498 0.4026787 0.3677148 0.3305162 0.2921372 0.2964188
## Cluster 5 0.5781250 0.5634914 0.5977888 0.5495302 0.5391121 0.4643879 0.4047845
                 17668
                           17669
                                     17670
                                                         17672
                                               17671
                                                                    17673
                                                                              17674
## Cluster 1 0.2127241 0.1895968 0.1770676 0.1719496 0.1707427 0.1715942 0.1649045
## Cluster 2 0.2114545 0.1897478 0.1754780 0.1694106 0.1609619 0.1529179 0.1548328
## Cluster 3 0.3187177 0.2686525 0.2385801 0.2248383 0.2169064 0.2060468 0.1972468
## Cluster 4 0.2371047 0.2132419 0.2078051 0.2189458 0.2186715 0.2173357 0.2297473
## Cluster 5 0.3199052 0.3067586 0.2671379 0.2536724 0.2307414 0.2404267 0.2431681
                 17675
                           17676
                                     17677
                                                          17679
##
                                               17678
                                                                    17680
                                                                              17681
## Cluster 1 0.1695265 0.1823183 0.1701472 0.1922613 0.2407918 0.2901830 0.3424907
## Cluster 2 0.1726246 0.1705015 0.2084252 0.2241525 0.2696188 0.2609413 0.2649531
## Cluster 3 0.1991348 0.2152539 0.2399957 0.2675560 0.2468567 0.2677574 0.2907674
## Cluster 4 0.2415740 0.3002130 0.3572491 0.4234404 0.5528412 0.5658159 0.5602130
## Cluster 5 0.2354741 0.2316940 0.2244310 0.2514612 0.2157284 0.2612026 0.2922414
##
                 17682
                           17683
                                     17684
                                               17685
                                                         17686
                                                                    17687
                                                                              17688
```

```
## Cluster 1 0.4207374 0.5418820 0.6124085 0.6303289 0.6326260 0.6285756 0.6331340
## Cluster 2 0.3335015 0.3814106 0.4765894 0.4518710 0.4768035 0.4515953 0.4185073
## Cluster 3 0.3345745 0.3745092 0.4437191 0.5159759 0.5573376 0.6039943 0.5986723
## Cluster 4 0.5292238 0.5976895 0.5638520 0.4988628 0.5458195 0.5097220 0.5457401
## Cluster 5 0.3336681 0.3398879 0.3568966 0.4137328 0.5020948 0.4156983 0.4061207
                 17689
                                     17691
                                               17692
                                                          17693
                                                                    17694
##
                           17690
## Cluster 1 0.6499032 0.6103143 0.5798316 0.5515531 0.5089019 0.5160239 0.5441830
## Cluster 2 0.4458710 0.3913519 0.4496364 0.4067067 0.3772229 0.3670938 0.3634457
## Cluster 3 0.6022326 0.6628709 0.6887021 0.6243248 0.6410553 0.5924823 0.5846567
## Cluster 4 0.5481264 0.5033032 0.4808448 0.4774260 0.4586643 0.4356209 0.4761913
  Cluster 5 0.4367672 0.4650991 0.4256034 0.4582931 0.4542069 0.4233879 0.4108578
                 17696
                           17697
                                     17698
                                               17699
                                                          17700
                                                                    17701
                                                                              17702
## Cluster 1 0.4963767 0.5291950 0.5448607 0.6840703 0.7424072 0.7973050 0.7985080
## Cluster 2 0.4131906 0.4011877 0.4008944 0.4492229 0.4837801 0.4776862 0.5568563
## Cluster 3 0.5858468 0.6229901 0.6524610 0.6348355 0.6607262 0.7065957 0.6905901
## Cluster 4 0.4917220 0.5054368 0.5914368 0.5753213 0.5696498 0.6018448 0.5382058
## Cluster 5 0.4458664 0.4145216 0.4327888 0.4126336 0.4461638 0.4901509 0.4434009
##
                 17703
                           17704
                                     17705
                                               17706
                                                          17707
                                                                    17708
                                                                              17709
## Cluster 1 0.7109775 0.6541101 0.6337507 0.5808660 0.5701419 0.5869337 0.5552016
## Cluster 2 0.6560968 0.6345015 0.6097537 0.5638534 0.5164194 0.5523343 0.5610000
## Cluster 3 0.6421688 0.6625759 0.6478270 0.6163986 0.5975589 0.6618766 0.6831716
## Cluster 4 0.4875704 0.5620650 0.4588014 0.4455884 0.4271516 0.4236715 0.4279892
## Cluster 5 0.4909224 0.4706034 0.5178491 0.5118793 0.5839440 0.5885388 0.5934310
                 17710
                           17711
                                     17712
                                               17713
                                                          17714
                                                                    17715
## Cluster 1 0.5332666 0.4744867 0.4154854 0.3682838 0.2906618 0.2539257 0.2273276
## Cluster 2 0.5547977 0.4665865 0.4062551 0.3288387 0.2850997 0.2721408 0.2382141
## Cluster 3 0.6598709 0.6085447 0.5389404 0.4628582 0.3886028 0.3596270 0.3139291
## Cluster 4 0.4156282 0.4097509 0.3343899 0.2988195 0.2666390 0.2445560 0.2150830
## Cluster 5 0.5916983 0.6289569 0.6135345 0.5350603 0.4665948 0.4354569 0.4005905
##
                 17717
                           17718
                                     17719
                                               17720
                                                          17721
                                                                    17722
                                                                              17723
## Cluster 1 0.2030159 0.1918926 0.1841419 0.1770279 0.1736061 0.1744761 0.1725133
## Cluster 2 0.2184311 0.1872727 0.1849326 0.1772199 0.1654399 0.1622551 0.1855865
## Cluster 3 0.2849986 0.2642539 0.2490241 0.2303929 0.2134043 0.2057773 0.2019262
## Cluster 4 0.2199531 0.2163466 0.2074982 0.1963610 0.2215632 0.2510614 0.2861625
## Cluster 5 0.3630216 0.3460776 0.2765991 0.2654655 0.2670000 0.2547586 0.2352759
                 17724
                                               17727
                                                          17728
                                                                    17729
                           17725
                                     17726
                                                                              17730
## Cluster 1 0.1739085 0.1744430 0.1844191 0.2118873 0.2392666 0.2948541 0.3738727
## Cluster 2 0.1565191 0.1786921 0.1994604 0.2151613 0.2136657 0.2278622 0.2441466
## Cluster 3 0.2129206 0.2385702 0.2338837 0.2238553 0.2393518 0.2714752 0.2784922
## Cluster 4 0.3362022 0.3569928 0.3779783 0.4318664 0.3693177 0.4124910 0.4478953
## Cluster 5 0.2260086 0.2266681 0.2440733 0.2399914 0.2575086 0.2526983 0.2798147
                 17731
                           17732
                                     17733
                                               17734
                                                          17735
                                                                    17736
                                                                              17737
## Cluster 1 0.4350239 0.5233249 0.6193342 0.6781578 0.7311751 0.7642440 0.7260133
## Cluster 2 0.3161701 0.3257830 0.4063842 0.3943988 0.4181877 0.4541320 0.4665103
## Cluster 3 0.3644894 0.4458865 0.5633929 0.6012170 0.5997574 0.6701901 0.7262482
## Cluster 4 0.5047617 0.5027184 0.6154765 0.5970181 0.5711769 0.5753791 0.6000722
## Cluster 5 0.3253664 0.4204612 0.4494397 0.4391681 0.4393966 0.4586121 0.4769009
                 17738
                           17739
                                                          17742
##
                                     17740
                                               17741
                                                                    17743
                                                                              17744
## Cluster 1 0.7767454 0.7657905 0.7211565 0.6319178 0.5783475 0.5924337 0.5863753
## Cluster 2 0.5094252 0.4812199 0.4487185 0.4554663 0.4822698 0.4511173 0.4448886
## Cluster 3 0.7701816 0.8176936 0.8081234 0.7324823 0.7160553 0.6496979 0.6039135
## Cluster 4 0.6311841 0.5022888 0.4982671 0.5323682 0.4445307 0.4758736 0.5315848
## Cluster 5 0.5582155 0.5251595 0.4568879 0.4901853 0.4729181 0.4474181 0.4427716
##
                 17745
                           17746
                                     17747
                                               17748
                                                          17749
                                                                    17750
                                                                              17751
```

```
## Cluster 1 0.5747851 0.5778196 0.6706751 0.6860597 0.6953886 0.6598647 0.6830106
## Cluster 2 0.4198944 0.4720088 0.5058211 0.4700499 0.5570352 0.6500000 0.6837155
## Cluster 3 0.6408397 0.6162908 0.6194823 0.6459050 0.6729248 0.6099220 0.6045461
## Cluster 4 0.6188556 0.5965993 0.6571191 0.6680036 0.5689458 0.5969567 0.5745307
## Cluster 5 0.4292802 0.4468276 0.4344310 0.4991121 0.5145517 0.4427155 0.4773793
                                                                    17757
##
                 17752
                           17753
                                     17754
                                               17755
                                                          17756
                                                                              17758
## Cluster 1 0.6320106 0.6364735 0.5984576 0.6118037 0.5840013 0.5801552 0.5305782
## Cluster 2 0.6254633 0.6719824 0.6272199 0.6580176 0.6391408 0.6403548 0.6029238
## Cluster 3 0.5993064 0.5902879 0.5880539 0.6380624 0.6412128 0.6794624 0.6421745
## Cluster 4 0.5417798 0.5125343 0.4955451 0.4854224 0.4739206 0.4439170 0.4402491
  Cluster 5 0.4340776 0.4678922 0.4750991 0.5467716 0.5701853 0.6053664 0.6003750
                 17759
                           17760
                                               17762
                                     17761
                                                          17763
                                                                    17764
                                                                              17765
## Cluster 1 0.4805557 0.3975756 0.3071194 0.2653634 0.2228859 0.2047255 0.1785371
## Cluster 2 0.5051848 0.3802082 0.3074633 0.2460088 0.2070557 0.1902698 0.1694135
## Cluster 3 0.5944681 0.5338894 0.4499489 0.3852468 0.3209362 0.2687333 0.2421092
## Cluster 4 0.4024332 0.3624188 0.3176498 0.2686968 0.2361588 0.2264332 0.2206787
## Cluster 5 0.6322759 0.5803190 0.5131724 0.4957457 0.4039224 0.3470474 0.3045690
##
                 17766
                           17767
                                     17768
                                               17769
                                                          17770
                                                                    17771
                                                                              17772
## Cluster 1 0.1767984 0.1686300 0.1661830 0.1630676 0.1597666 0.1666459 0.1857361
## Cluster 2 0.1563842 0.1536188 0.1485220 0.1478739 0.1502874 0.1807449 0.1701848
## Cluster 3 0.2371986 0.2231759 0.2163220 0.2034496 0.1969518 0.1995532 0.2154099
## Cluster 4 0.2119097 0.2015668 0.1901949 0.2013285 0.2304368 0.2617220 0.3176534
## Cluster 5 0.2729138 0.2461293 0.2144784 0.2417931 0.2443017 0.2389224 0.2163319
                 17773
                           17774
                                     17775
                                               17776
                                                          17777
                                                                    17778
## Cluster 1 0.2035371 0.2192944 0.2599456 0.3490292 0.4239072 0.4693130 0.5116379
## Cluster 2 0.2016891 0.2751202 0.3170088 0.3711261 0.3428534 0.3437478 0.2817771
## Cluster 3 0.2472028 0.2608043 0.2910936 0.2798355 0.3184681 0.3429660 0.3949986
## Cluster 4 0.3801625 0.5097437 0.5934657 0.7187040 0.5857112 0.5217726 0.4723394
## Cluster 5 0.2375776 0.2569181 0.2660948 0.3170302 0.3695690 0.3542371 0.3755000
##
                 17780
                           17781
                                     17782
                                               17783
                                                          17784
                                                                    17785
                                                                              17786
## Cluster 1 0.5347706 0.5183621 0.5247785 0.4982149 0.4985809 0.5262812 0.5825902
## Cluster 2 0.2805572 0.2575630 0.2970000 0.2711584 0.2655425 0.2890088 0.3282551
## Cluster 3 0.4314397 0.4351475 0.4639730 0.5619986 0.5663631 0.5332340 0.5466553
## Cluster 4 0.4394693 0.3892274 0.4466570 0.4666787 0.4960397 0.4244549 0.4499206
  Cluster 5 0.3537414 0.3944741 0.3762931 0.3648793 0.3638276 0.3710733 0.3743103
                                               17790
                 17787
                           17788
                                     17789
                                                          17791
                                                                    17792
                                                                              17793
## Cluster 1 0.5746313 0.5108952 0.4645849 0.4862427 0.4716366 0.4564297 0.5382401
## Cluster 2 0.3575425 0.3017155 0.2907067 0.3005982 0.2891965 0.3071349 0.3426598
## Cluster 3 0.5630936 0.5574794 0.5540000 0.5598440 0.6136511 0.6269021 0.6651390
## Cluster 4 0.5035307 0.4602419 0.4586895 0.4661191 0.4498773 0.5090036 0.5484765
## Cluster 5 0.3777672 0.3897629 0.3778448 0.3626164 0.3525172 0.3704353 0.3794957
                 17794
                           17795
                                     17796
                                               17797
                                                          17798
                                                                    17799
                                                                              17800
## Cluster 1 0.6445915 0.7546658 0.8381578 0.8427931 0.7243395 0.6975027 0.6489841
## Cluster 2 0.3765132 0.4207126 0.4870762 0.5795396 0.5420499 0.6626510 0.6670645
## Cluster 3 0.6711418 0.6619660 0.6763248 0.6197901 0.6106879 0.6242610 0.6000950
## Cluster 4 0.6360614 0.6472996 0.5955848 0.6067220 0.5579819 0.5920072 0.5071444
## Cluster 5 0.3802974 0.3964310 0.4941810 0.5247888 0.4915216 0.4927457 0.4716250
                           17802
                                                          17805
##
                 17801
                                     17803
                                               17804
                                                                    17806
                                                                              17807
## Cluster 1 0.6099682 0.5871724 0.5993939 0.6082759 0.5920252 0.5612427 0.4940928
## Cluster 2 0.5898094 0.5772874 0.5844633 0.6578915 0.6732551 0.6434927 0.5903460
## Cluster 3 0.6220270 0.6005220 0.6492085 0.6839645 0.6882199 0.7055773 0.6964270
## Cluster 4 0.4823032 0.4996679 0.4440289 0.4856534 0.5414368 0.5061011 0.4485451
## Cluster 5 0.4597845 0.4431121 0.4788362 0.5248707 0.6052802 0.6551336 0.6911509
##
                 17808
                           17809
                                     17810
                                               17811
                                                          17812
                                                                    17813
                                                                              17814
```

```
## Cluster 1 0.4048316 0.3146870 0.2533740 0.2167109 0.2008462 0.1840305 0.1812599
## Cluster 2 0.4491290 0.3281701 0.2482757 0.2151290 0.1896891 0.1763988 0.1592757
## Cluster 3 0.6002128 0.4837135 0.4051106 0.3310213 0.2902965 0.2581603 0.2309220
## Cluster 4 0.3810325 0.2881986 0.2806859 0.2423032 0.2232852 0.2129783 0.2088628
## Cluster 5 0.5997931 0.5614957 0.4686250 0.3740000 0.3498578 0.2847888 0.2553793
                 17815
                           17816
                                                          17819
                                                                    17820
##
                                     17817
                                               17818
## Cluster 1 0.1741631 0.1637414 0.1621233 0.1652042 0.1773196 0.1885570 0.1981711
## Cluster 2 0.1515543 0.1509062 0.1552903 0.1531554 0.1647038 0.1790264 0.2396452
## Cluster 3 0.2257660 0.2271660 0.2006652 0.2017475 0.2155220 0.2194057 0.2481730
## Cluster 4 0.2127690 0.1950939 0.2125199 0.2218412 0.2562599 0.3100000 0.4080361
  Cluster 5 0.2396983 0.2367543 0.2369569 0.2341595 0.2371681 0.2123879 0.2403922
                           17823
                                     17824
                 17822
                                               17825
                                                          17826
                                                                    17827
                                                                              17828
## Cluster 1 0.2177228 0.2802626 0.3713594 0.4411485 0.4744509 0.5233130 0.5152294
## Cluster 2 0.2815924 0.3996188 0.3944633 0.3359179 0.2596657 0.2687742 0.2695191
## Cluster 3 0.2581191 0.3037220 0.3019262 0.3215730 0.3884638 0.4483177 0.4543887
## Cluster 4 0.6032058 0.6605054 0.6640975 0.6010036 0.5630650 0.4938809 0.4399964
## Cluster 5 0.2485560 0.3096897 0.3882931 0.3960302 0.3460345 0.3323147 0.3073836
##
                 17829
                           17830
                                     17831
                                               17832
                                                          17833
                                                                    17834
                                                                              17835
## Cluster 1 0.5207745 0.5132984 0.5102202 0.4841154 0.4907613 0.5002772 0.5009443
## Cluster 2 0.2801994 0.2919267 0.2667273 0.2600704 0.2530762 0.2724868 0.2778182
## Cluster 3 0.5112454 0.4702426 0.4960355 0.5049177 0.5411745 0.5627872 0.5539135
## Cluster 4 0.4149892 0.4374585 0.4665415 0.4237256 0.4306065 0.4709603 0.4501841
## Cluster 5 0.3516121 0.3454526 0.3191034 0.3456638 0.3248362 0.3608276 0.3476078
                 17836
                           17837
                                     17838
                                               17839
                                                          17840
                                                                    17841
## Cluster 1 0.4609721 0.4573050 0.4369350 0.4283263 0.4617944 0.5133342 0.6368475
## Cluster 2 0.2430674 0.2496334 0.2558563 0.2371261 0.2359003 0.2993695 0.3357537
## Cluster 3 0.5396128 0.4624851 0.4796355 0.5221901 0.5615106 0.6478851 0.6872496
## Cluster 4 0.4329278 0.4281516 0.3652419 0.4029278 0.4736643 0.5093177 0.5751588
## Cluster 5 0.3269138 0.3098793 0.2838922 0.2850862 0.3189914 0.3343578 0.3819784
##
                 17843
                           17844
                                     17845
                                               17846
                                                          17847
                                                                    17848
                                                                              17849
## Cluster 1 0.7853395 0.8185093 0.8265889 0.6880862 0.6482507 0.6199960 0.6240305
## Cluster 2 0.3740147 0.4455806 0.4837273 0.5726891 0.7050616 0.6337625 0.6290293
## Cluster 3 0.6592270 0.6896000 0.6685702 0.6133674 0.6059745 0.5975121 0.5947489
## Cluster 4 0.6266968 0.6748051 0.6405523 0.5746823 0.5718159 0.5893827 0.4990144
## Cluster 5 0.4052026 0.4345647 0.4817888 0.5367198 0.5827112 0.4795603 0.4970259
                           17851
                                               17853
                                                          17854
                 17850
                                     17852
                                                                    17855
                                                                              17856
## Cluster 1 0.6333581 0.6405265 0.6308647 0.5989934 0.5669841 0.5016565 0.4144284
## Cluster 2 0.6341496 0.6831056 0.7241056 0.7726657 0.6787449 0.5542786 0.4202962
## Cluster 3 0.5997589 0.6570723 0.6596482 0.7176241 0.6575887 0.6566596 0.5632199
## Cluster 4 0.4522058 0.4621588 0.4580433 0.4564657 0.4722671 0.4397906 0.3740505
## Cluster 5 0.4927888 0.4956940 0.5293578 0.5756164 0.7170603 0.7255086 0.6874353
                 17857
                           17858
                                     17859
                                               17860
                                                          17861
                                                                    17862
                                                                              17863
## Cluster 1 0.3162255 0.2532042 0.2178236 0.1887188 0.1784390 0.1679350 0.1633634
## Cluster 2 0.3172493 0.2468065 0.2058211 0.1889208 0.1746745 0.1565543 0.1553636
## Cluster 3 0.4696894 0.3832553 0.3117688 0.2740851 0.2373986 0.2209688 0.2144766
## Cluster 4 0.2902708 0.2441625 0.2178159 0.2096643 0.2032527 0.1936859 0.2032202
## Cluster 5 0.5764440 0.4777931 0.4014957 0.3359224 0.2979267 0.2774310 0.2576078
                           17865
                                     17866
                                                          17868
##
                 17864
                                               17867
                                                                    17869
                                                                              17870
## Cluster 1 0.1590743 0.1626353 0.1690729 0.1768263 0.1838448 0.2011618 0.2164629
## Cluster 2 0.1512962 0.1505396 0.1491026 0.1646364 0.1829413 0.2395748 0.2600029
## Cluster 3 0.2082610 0.2065106 0.1971121 0.1969376 0.2257433 0.2593957 0.2457007
## Cluster 4 0.2044007 0.2108339 0.2162960 0.2383863 0.3075343 0.4055271 0.5909747
## Cluster 5 0.2352845 0.2393621 0.2243060 0.2378793 0.2356336 0.2306164 0.2515172
##
                 17871
                           17872
                                     17873
                                               17874
                                                          17875
                                                                    17876
                                                                              17877
```

```
## Cluster 1 0.2747347 0.3744655 0.4439204 0.4706247 0.5243276 0.5452507 0.5320119
## Cluster 2 0.3745806 0.3545367 0.3514252 0.3447067 0.2965191 0.2962023 0.2827537
## Cluster 3 0.3065716 0.3057730 0.3374128 0.3815716 0.4111730 0.4127957 0.4633943
## Cluster 4 0.6315271 0.6230036 0.6750253 0.5794982 0.5068773 0.3956643 0.4134007
## Cluster 5 0.2812888 0.3352845 0.3400991 0.3386983 0.3140905 0.2723578 0.3400474
                           17879
                                     17880
                                                         17882
                                                                    17883
##
                 17878
                                               17881
## Cluster 1 0.5174814 0.5017122 0.4628912 0.4959416 0.4963090 0.5274814 0.4774111
## Cluster 2 0.3098328 0.2809296 0.2605689 0.2814194 0.2849824 0.2772434 0.2904839
## Cluster 3 0.4985901 0.4886837 0.5480482 0.5704851 0.5870383 0.5871674 0.5300766
## Cluster 4 0.4054440 0.4301372 0.4544982 0.4251697 0.4399495 0.4785451 0.3995199
  Cluster 5 0.3380345 0.3376250 0.3356552 0.3646552 0.4273578 0.4148707 0.4244310
                           17886
                                     17887
                                               17888
                                                         17889
                 17885
                                                                    17890
                                                                              17891
## Cluster 1 0.4834523 0.4677772 0.4547679 0.4463170 0.5347931 0.6531684 0.7458143
## Cluster 2 0.2445132 0.2664545 0.2321701 0.2712346 0.2866774 0.3036891 0.3563284
## Cluster 3 0.5332312 0.5697801 0.5747957 0.6178028 0.6569957 0.6451972 0.6495135
## Cluster 4 0.3575054 0.4021913 0.4258664 0.4423935 0.5420361 0.5792563 0.5949747
## Cluster 5 0.3390905 0.3043362 0.3163319 0.3778966 0.4293362 0.4369612 0.4472716
##
                 17892
                           17893
                                     17894
                                               17895
                                                         17896
                                                                    17897
                                                                              17898
## Cluster 1 0.8183528 0.7793077 0.7030159 0.6806366 0.6758130 0.6645080 0.6197387
## Cluster 2 0.4385601 0.5539032 0.6501496 0.7161378 0.6927566 0.6569208 0.6587537
## Cluster 3 0.7168950 0.6633560 0.6534936 0.6546482 0.6504468 0.6352539 0.6107929
## Cluster 4 0.6644513 0.6490000 0.5291336 0.5677329 0.5132671 0.4990542 0.4896751
## Cluster 5 0.4554397 0.5456724 0.5497672 0.5990948 0.5260819 0.4833534 0.5205043
                                     17901
                 17899
                           17900
                                               17902
                                                         17903
                                                                    17904
## Cluster 1 0.6342533 0.6274828 0.6381565 0.5555637 0.4743714 0.4007321 0.3207997
## Cluster 2 0.6996481 0.6737419 0.6904252 0.6600323 0.5658006 0.4815513 0.3364428
## Cluster 3 0.6831191 0.6822979 0.7016284 0.6846837 0.6335092 0.5770667 0.4702170
## Cluster 4 0.4848953 0.4667942 0.4614332 0.4214260 0.4144657 0.3527220 0.3110000
## Cluster 5 0.5317371 0.5897284 0.6234526 0.6511724 0.7237759 0.6602069 0.5505647
##
                 17906
                           17907
                                     17908
                                               17909
                                                         17910
                                                                    17911
                                                                              17912
## Cluster 1 0.2508926 0.2050570 0.1959801 0.1774735 0.1673369 0.1658369 0.1578488
## Cluster 2 0.2576422 0.2327273 0.1959589 0.1829912 0.1653871 0.1634751 0.1533255
## Cluster 3 0.3928610 0.3033050 0.2648709 0.2308156 0.2224965 0.2141106 0.2060397
## Cluster 4 0.2723827 0.2394188 0.2116787 0.2072635 0.1973682 0.2004116 0.1989747
## Cluster 5 0.4798922 0.4000345 0.3434698 0.3326422 0.2864095 0.2575733 0.2577672
                           17914
                                     17915
                                               17916
                                                         17917
                 17913
                                                                    17918
## Cluster 1 0.1584602 0.1633130 0.1722321 0.1801326 0.1980398 0.2177334 0.2806340
## Cluster 2 0.1478534 0.1526217 0.1632258 0.1748446 0.2546276 0.2645249 0.3644692
## Cluster 3 0.1956766 0.1912071 0.1939078 0.2140681 0.2467816 0.2644326 0.2914241
## Cluster 4 0.2151661 0.2277365 0.2484296 0.3122780 0.4436679 0.6047256 0.6721769
## Cluster 5 0.2497672 0.2566810 0.2549569 0.2445560 0.2668491 0.2796681 0.2928017
                 17920
                           17921
                                     17922
                                               17923
                                                         17924
                                                                              17926
                                                                    17925
## Cluster 1 0.3696114 0.4396737 0.4714456 0.5664801 0.5520080 0.5140676 0.5053024
## Cluster 2 0.3608446 0.3661466 0.3188035 0.3187067 0.2615484 0.2796246 0.2592317
## Cluster 3 0.3158553 0.3330043 0.3868000 0.4226043 0.4300199 0.4627929 0.4634780
## Cluster 4 0.6471986 0.5985957 0.5611300 0.4682310 0.4189170 0.4128231 0.3680469
## Cluster 5 0.3314957 0.3691681 0.3268966 0.3357845 0.3449224 0.3563362 0.3866336
                           17928
                                               17930
##
                 17927
                                     17929
                                                          17931
                                                                    17932
                                                                              17933
## Cluster 1 0.4585332 0.4947812 0.4837122 0.4839549 0.5053554 0.4620106 0.4382878
## Cluster 2 0.2649472 0.2644047 0.2545601 0.2689589 0.2755689 0.2743490 0.2783783
## Cluster 3 0.5006681 0.5326128 0.5537858 0.5432723 0.5660780 0.5235390 0.5027773
## Cluster 4 0.3575704 0.3684368 0.4043394 0.3924332 0.4085343 0.4087365 0.3571588
## Cluster 5 0.3978190 0.3783534 0.3650560 0.4057155 0.4097414 0.4074741 0.3753190
##
                 17934
                           17935
                                     17936
                                               17937
                                                         17938
                                                                    17939
                                                                              17940
```

```
## Cluster 1 0.4590398 0.4446180 0.4566286 0.4868395 0.5560690 0.7159629 0.7918435
## Cluster 2 0.2715308 0.2846334 0.2909619 0.2754311 0.3177537 0.3793695 0.4436891
## Cluster 3 0.5202468 0.5367745 0.5557348 0.5683816 0.6163007 0.6495532 0.6463291
## Cluster 4 0.3817401 0.4584477 0.4799819 0.5626245 0.6055162 0.6125126 0.6298809
## Cluster 5 0.3363362 0.3150647 0.3415603 0.3383793 0.3315345 0.3498103 0.4040043
                 17941
                           17942
                                                          17945
##
                                     17943
                                               17944
                                                                    17946
                                                                              17947
## Cluster 1 0.7721472 0.7103342 0.6594987 0.6370690 0.5939416 0.6126698 0.6278408
## Cluster 2 0.4892727 0.5636686 0.6164252 0.6376862 0.6478328 0.6439853 0.6313372
## Cluster 3 0.6248028 0.6303248 0.6477504 0.6257702 0.5712482 0.6088823 0.6456397
## Cluster 4 0.6201949 0.5446534 0.5262166 0.5895884 0.5025487 0.5109747 0.5263971
  Cluster 5 0.4415474 0.4257241 0.4873836 0.4091509 0.4349310 0.4632931 0.5100733
                           17949
                                     17950
                                               17951
                                                          17952
                 17948
                                                                    17953
                                                                              17954
## Cluster 1 0.6731976 0.6570318 0.6204841 0.5116671 0.4157599 0.3204536 0.2581565
## Cluster 2 0.6687625 0.6917478 0.6307977 0.5712493 0.4558827 0.3420469 0.2478006
## Cluster 3 0.7084440 0.7376496 0.7093546 0.6439702 0.5561348 0.4759532 0.3836000
## Cluster 4 0.5008628 0.5183935 0.4785415 0.4621769 0.3965704 0.3229819 0.2593538
## Cluster 5 0.5552241 0.5829483 0.6447629 0.7335862 0.6569483 0.5380388 0.4519526
##
                 17955
                           17956
                                     17957
                                               17958
                                                          17959
                                                                    17960
                                                                              17961
## Cluster 1 0.2120716 0.1951088 0.1742308 0.1648302 0.1608992 0.1562838 0.1556088
## Cluster 2 0.2126393 0.1822141 0.1598563 0.1647302 0.1550029 0.1463959 0.1483783
## Cluster 3 0.3193929 0.2711177 0.2465064 0.2276624 0.2347433 0.2083447 0.1985404
## Cluster 4 0.2287148 0.2066643 0.2108375 0.2041011 0.2024657 0.1992744 0.2218014
## Cluster 5 0.3784698 0.3421336 0.3082414 0.2974914 0.3011897 0.2636336 0.2510690
                 17962
                           17963
                                     17964
                                               17965
                                                          17966
                                                                    17967
## Cluster 1 0.1602241 0.1681459 0.1813422 0.1892944 0.2167228 0.2949934 0.3714576
## Cluster 2 0.1425748 0.1562727 0.1689091 0.2112111 0.2698446 0.3405425 0.3963666
## Cluster 3 0.1927674 0.2040709 0.2216950 0.2370709 0.2645007 0.2824213 0.2977050
## Cluster 4 0.2378484 0.2570433 0.3060181 0.4374982 0.5834874 0.7007726 0.7372022
## Cluster 5 0.2343922 0.2238405 0.2405000 0.2424224 0.2770776 0.3381336 0.3602672
##
                 17969
                           17970
                                     17971
                                               17972
                                                          17973
                                                                    17974
                                                                              17975
## Cluster 1 0.4731817 0.4915822 0.5587560 0.5289668 0.5336671 0.4786247 0.4510371
## Cluster 2 0.4199384 0.3936891 0.3027243 0.3014897 0.3049091 0.3275015 0.2820850
## Cluster 3 0.3275489 0.3578908 0.4010809 0.4281816 0.4331532 0.4682879 0.5091504
## Cluster 4 0.5760036 0.5048159 0.4781300 0.4897942 0.4547148 0.4104332 0.4140036
## Cluster 5 0.3369784 0.3898750 0.3432931 0.3723534 0.3676164 0.3257198 0.3371940
                 17976
                           17977
                                     17978
                                               17979
                                                          17980
                                                                    17981
                                                                              17982
## Cluster 1 0.4242971 0.4451897 0.4669257 0.4723382 0.4689443 0.4336353 0.4289708
## Cluster 2 0.2679413 0.2641730 0.3235308 0.3064223 0.2945396 0.2881056 0.2713255
## Cluster 3 0.5112794 0.5277348 0.5211617 0.5439191 0.4960596 0.4955447 0.4902355
## Cluster 4 0.3973502 0.3716859 0.3675162 0.3916968 0.3809242 0.3601408 0.3600686
## Cluster 5 0.3429310 0.3657802 0.4676509 0.4184483 0.3945517 0.3460043 0.3443707
                 17983
                           17984
                                     17985
                                               17986
                                                          17987
                                                                    17988
                                                                              17989
## Cluster 1 0.4283594 0.4336419 0.4713806 0.5233528 0.5961830 0.7068395 0.7196247
## Cluster 2 0.2888035 0.2693314 0.2943783 0.3539648 0.3729355 0.4501232 0.5170792
## Cluster 3 0.5228624 0.5550440 0.6047362 0.6424950 0.6252681 0.6497248 0.6632426
## Cluster 4 0.4232852 0.4814043 0.4882888 0.5286173 0.5462166 0.6135307 0.5934224
## Cluster 5 0.3367241 0.3779612 0.3874871 0.3613017 0.3958448 0.5113448 0.5050345
                           17991
                                     17992
##
                 17990
                                               17993
                                                          17994
                                                                    17995
                                                                              17996
## Cluster 1 0.6615676 0.6187599 0.6320345 0.6041233 0.5826154 0.5979032 0.5980756
## Cluster 2 0.5599971 0.5781965 0.6149472 0.6030909 0.5396393 0.6289062 0.6709150
## Cluster 3 0.6242255 0.6084255 0.5768582 0.5696652 0.6128638 0.6371943 0.6470738
## Cluster 4 0.4967473 0.5230181 0.5241480 0.5354440 0.4860939 0.4732455 0.5028953
## Cluster 5 0.4880905 0.4637629 0.4683362 0.4514181 0.4699483 0.5053836 0.5560647
##
                 17997
                           17998
                                     17999
                                               18000
                                                          18001
                                                                    18002
                                                                              18003
```

```
## Cluster 1 0.5994775 0.5440424 0.5153873 0.4382149 0.3438568 0.2882745 0.2430756
## Cluster 2 0.6620147 0.6253196 0.5141906 0.4446569 0.3520587 0.2876686 0.2231261
## Cluster 3 0.6467348 0.6606213 0.6216610 0.5531348 0.4887589 0.3957035 0.3440879
## Cluster 4 0.4562094 0.3904549 0.3959422 0.3566823 0.3316282 0.2843971 0.2509242
## Cluster 5 0.6288621 0.6534612 0.6897845 0.6222672 0.5389095 0.4985172 0.4551940
                 18004
                           18005
                                     18006
                                                          18008
                                                                    18009
##
                                               18007
## Cluster 1 0.2147361 0.1951711 0.1923607 0.1781247 0.1725610 0.1737162 0.1774987
## Cluster 2 0.1996364 0.1846950 0.1737009 0.1698563 0.1637595 0.1595044 0.1537947
## Cluster 3 0.2931362 0.2657050 0.2479489 0.2391645 0.2211872 0.2089163 0.2077858
## Cluster 4 0.2265126 0.2276931 0.2167653 0.2172635 0.2100289 0.2137690 0.2459495
  Cluster 5 0.3526897 0.3146681 0.2912198 0.3044440 0.2620172 0.2733922 0.2707198
                 18011
                           18012
                                     18013
                                               18014
                                                          18015
                                                                    18016
                                                                              18017
## Cluster 1 0.1807016 0.1879443 0.1801790 0.1998979 0.2375411 0.2807440 0.3508568
## Cluster 2 0.1734868 0.1667390 0.2062082 0.2140293 0.2685367 0.2628622 0.3324018
## Cluster 3 0.2023035 0.2100638 0.2256879 0.2356709 0.2388369 0.2571730 0.2879702
## Cluster 4 0.2681372 0.2866209 0.3584513 0.4417653 0.4992058 0.5091552 0.5531661
## Cluster 5 0.2341552 0.2393233 0.2236681 0.2346724 0.2562284 0.2557155 0.3054181
##
                 18018
                           18019
                                     18020
                                               18021
                                                          18022
                                                                    18023
                                                                              18024
## Cluster 1 0.4365597 0.5068355 0.5999854 0.5742255 0.6266777 0.6308210 0.5906207
## Cluster 2 0.3732610 0.4299326 0.4061320 0.3765073 0.3660762 0.3772170 0.4261408
## Cluster 3 0.3245901 0.4024199 0.4306496 0.4647546 0.5160397 0.5747787 0.5826383
## Cluster 4 0.5763357 0.5471877 0.4669711 0.4485884 0.4544585 0.4791949 0.5177942
## Cluster 5 0.3121767 0.3450259 0.4121034 0.3973793 0.4567328 0.4538836 0.4101940
                 18025
                           18026
                                     18027
                                               18028
                                                          18029
                                                                    18030
## Cluster 1 0.5684947 0.6533329 0.6389416 0.5542679 0.5508183 0.5282546 0.4751353
## Cluster 2 0.4079384 0.4303695 0.4536188 0.4375073 0.4737478 0.4575689 0.4380587
## Cluster 3 0.6209617 0.6360397 0.6646681 0.6298950 0.6359234 0.6169816 0.5712440
## Cluster 4 0.4880108 0.4683538 0.4691516 0.4653466 0.4442166 0.5052166 0.5002166
## Cluster 5 0.4057328 0.4825733 0.4473362 0.4387759 0.4352974 0.4246207 0.3893017
##
                 18032
                           18033
                                     18034
                                               18035
                                                          18036
                                                                    18037
                                                                              18038
## Cluster 1 0.5054509 0.5466857 0.5618210 0.6446154 0.7398210 0.7349655 0.7179509
## Cluster 2 0.4970029 0.4616158 0.4653871 0.5029619 0.4918182 0.5613519 0.6053431
## Cluster 3 0.5986383 0.5815362 0.5949546 0.6369560 0.6771121 0.6820468 0.6722099
## Cluster 4 0.5479495 0.5762960 0.5283718 0.5183971 0.5982816 0.6225523 0.5608592
## Cluster 5 0.3882500 0.4646379 0.4950862 0.4548233 0.4728621 0.4728276 0.4860560
                 18039
                                     18041
                                               18042
                                                          18043
                           18040
                                                                    18044
                                                                              18045
## Cluster 1 0.6651048 0.6117520 0.6309058 0.5674987 0.5615981 0.5692507 0.5763382
## Cluster 2 0.6278798 0.5808035 0.5477625 0.5525308 0.5860293 0.5351760 0.5703578
## Cluster 3 0.6427858 0.6382227 0.6440709 0.6198326 0.5900270 0.6445730 0.6355418
## Cluster 4 0.4897834 0.4658195 0.4365126 0.4212202 0.3826354 0.4181372 0.4538014
## Cluster 5 0.4656250 0.4702888 0.4355690 0.4716121 0.4484526 0.5393793 0.5937414
                 18046
                           18047
                                     18048
                                               18049
                                                          18050
                                                                    18051
                                                                              18052
## Cluster 1 0.5417374 0.4879191 0.4165902 0.3494934 0.2962135 0.2417812 0.2262798
## Cluster 2 0.5653314 0.5394633 0.4392874 0.3776950 0.3094897 0.2678328 0.2547390
## Cluster 3 0.6099333 0.5932979 0.5457007 0.4780652 0.4192255 0.3467830 0.3147801
## Cluster 4 0.4120794 0.3890325 0.3754946 0.3312852 0.2625848 0.2551625 0.2505668
## Cluster 5 0.5754612 0.6688750 0.6065862 0.5074569 0.4613922 0.4292328 0.3715216
                           18054
                                     18055
##
                 18053
                                               18056
                                                          18057
                                                                    18058
                                                                              18059
## Cluster 1 0.2068329 0.1924390 0.1888037 0.1805836 0.1769576 0.1795358 0.1759920
## Cluster 2 0.2212170 0.2093607 0.2029355 0.1767654 0.1589120 0.1620117 0.1782082
## Cluster 3 0.2905489 0.2704043 0.2520113 0.2289504 0.2185021 0.2110525 0.2125915
## Cluster 4 0.2446715 0.2290361 0.2255415 0.2074946 0.2187473 0.2414910 0.2538845
## Cluster 5 0.3538147 0.3230043 0.2950603 0.2654397 0.2638233 0.2582931 0.2375000
##
                 18060
                           18061
                                     18062
                                               18063
                                                          18064
                                                                    18065
                                                                              18066
```

```
## Cluster 1 0.1796366 0.1849867 0.1889297 0.2032122 0.2373780 0.2888183 0.3784324
## Cluster 2 0.1747067 0.1848739 0.2160176 0.2130411 0.1981525 0.2339824 0.2574047
## Cluster 3 0.2148837 0.2256950 0.2190270 0.2290879 0.2538596 0.2733589 0.3092369
## Cluster 4 0.3085451 0.3205379 0.3852347 0.4176534 0.4213574 0.4383935 0.4663321
## Cluster 5 0.2336293 0.2352371 0.2412586 0.2724440 0.2509655 0.2539224 0.2793750
                 18067
                           18068
                                     18069
                                               18070
                                                         18071
                                                                    18072
##
                                                                              18073
## Cluster 1 0.4745650 0.5687149 0.6239005 0.6915332 0.6897507 0.6708753 0.7340650
## Cluster 2 0.3456950 0.4025396 0.4387830 0.4781114 0.5265396 0.4670968 0.4865279
## Cluster 3 0.3547447 0.4438482 0.5373035 0.5990057 0.6849319 0.6776142 0.6954340
## Cluster 4 0.5446823 0.5698628 0.5609892 0.5874982 0.5659531 0.5416318 0.6344874
  Cluster 5 0.3239569 0.3782112 0.4440733 0.4478491 0.5076595 0.5432069 0.5242802
                           18075
                                                         18078
                                     18076
                                               18077
                 18074
                                                                    18079
                                                                              18080
## Cluster 1 0.7751088 0.7355836 0.6666485 0.5861459 0.5808647 0.5666605 0.5257003
## Cluster 2 0.5000674 0.4810323 0.4871320 0.5115161 0.3893431 0.4086686 0.4162639
## Cluster 3 0.7137177 0.7199092 0.6998610 0.6799730 0.6343319 0.6278993 0.5926823
## Cluster 4 0.5661877 0.5589170 0.6238628 0.5629603 0.5301011 0.5032058 0.5199170
## Cluster 5 0.5476983 0.4989397 0.5037672 0.4781034 0.4266078 0.4411078 0.4276767
##
                 18081
                           18082
                                     18083
                                               18084
                                                          18085
                                                                    18086
                                                                              18087
## Cluster 1 0.5501021 0.5499310 0.6083873 0.6630199 0.6734138 0.6362255 0.6484576
## Cluster 2 0.3674545 0.3899941 0.4292962 0.5341232 0.5538065 0.5898974 0.6311613
## Cluster 3 0.5913489 0.5596752 0.5530369 0.5742085 0.6114411 0.5922440 0.5870496
## Cluster 4 0.5876354 0.5593574 0.5613032 0.5941661 0.5741191 0.5170000 0.4995523
## Cluster 5 0.4052931 0.4360647 0.4746897 0.4558491 0.4641638 0.5287888 0.4517716
                 18088
                           18089
                                     18090
                                               18091
                                                         18092
                                                                    18093
## Cluster 1 0.6160570 0.5890902 0.5541790 0.5520040 0.5742825 0.5861618 0.5584549
## Cluster 2 0.5720645 0.6539179 0.5997009 0.6056129 0.6972170 0.6819795 0.6123900
## Cluster 3 0.6105362 0.5753929 0.5808965 0.6238369 0.6403929 0.6407504 0.6451759
## Cluster 4 0.4684801 0.4582996 0.4774332 0.4460830 0.4703610 0.4655740 0.4569061
## Cluster 5 0.4372586 0.4475259 0.4806336 0.5407112 0.5741207 0.5949612 0.6056509
                 18095
                           18096
                                     18097
                                               18098
                                                         18099
                                                                    18100
                                                                              18101
## Cluster 1 0.4827202 0.3957865 0.3112719 0.2486658 0.2151114 0.1985385 0.1866631
## Cluster 2 0.5169853 0.4195337 0.3159941 0.2424897 0.2170293 0.1744516 0.1830587
## Cluster 3 0.6004383 0.5407518 0.4400979 0.3788426 0.3267574 0.2895319 0.2559617
## Cluster 4 0.4284693 0.3480758 0.2915523 0.2741913 0.2586282 0.2337148 0.2186101
## Cluster 5 0.6312974 0.6462543 0.5318448 0.4750474 0.4089440 0.3431250 0.3229698
                                     18104
                 18102
                           18103
                                               18105
                                                         18106
                                                                    18107
## Cluster 1 0.1757653 0.1678196 0.1630544 0.1619430 0.1629072 0.1693727 0.1724430
## Cluster 2 0.1680323 0.1675220 0.1567009 0.1532463 0.1651935 0.1812434 0.1868974
## Cluster 3 0.2280312 0.2262057 0.2214255 0.2021489 0.2100582 0.2027688 0.2151816
## Cluster 4 0.2214910 0.2105704 0.2033213 0.2157473 0.2440469 0.2673574 0.3137004
## Cluster 5 0.3023750 0.2701207 0.2665388 0.2617500 0.2367543 0.2249353 0.2492500
                           18110
                                     18111
                                               18112
                                                         18113
                 18109
                                                                    18114
                                                                              18115
## Cluster 1 0.2043541 0.2234284 0.2533103 0.3605902 0.4251883 0.4596499 0.5094682
## Cluster 2 0.2405718 0.2860587 0.3527273 0.3443871 0.3359032 0.3237947 0.2994663
## Cluster 3 0.2424284 0.2565929 0.2612142 0.2903901 0.3230780 0.3649957 0.4122284
## Cluster 4 0.3998267 0.5527617 0.6293394 0.6838556 0.6444116 0.5015957 0.4432022
## Cluster 5 0.2277586 0.2551552 0.2726078 0.3535259 0.3588922 0.4002802 0.3578319
##
                 18116
                           18117
                                     18118
                                               18119
                                                          18120
                                                                    18121
                                                                              18122
## Cluster 1 0.5081538 0.4849443 0.5309019 0.5165199 0.4725398 0.5194576 0.5166525
## Cluster 2 0.2860792 0.2450528 0.2431026 0.2586686 0.2606891 0.2991760 0.2962317
## Cluster 3 0.4147943 0.4536936 0.4932298 0.5291291 0.5241759 0.5418355 0.5282709
## Cluster 4 0.4474874 0.4323610 0.4246029 0.4184838 0.4318014 0.4675018 0.4316859
## Cluster 5 0.3756121 0.3538276 0.3162241 0.3503362 0.3683233 0.3555302 0.3615345
##
                 18123
                           18124
                                     18125
                                               18126
                                                         18127
                                                                    18128
                                                                              18129
```

```
## Cluster 1 0.5618382 0.4968382 0.4603714 0.4556631 0.4891313 0.4811764 0.5139801
## Cluster 2 0.3377214 0.3107859 0.2696716 0.2553548 0.2638974 0.2926716 0.3535513
## Cluster 3 0.5241504 0.5454993 0.5170255 0.5427858 0.5676241 0.5544624 0.6015035
## Cluster 4 0.4530650 0.4404296 0.4405199 0.4368881 0.5028809 0.4745921 0.5502202
## Cluster 5 0.3626034 0.3821336 0.3484138 0.3642371 0.3658362 0.3529871 0.3375345
                 18130
                           18131
                                     18132
                                               18133
                                                          18134
                                                                    18135
##
                                                                              18136
## Cluster 1 0.5941658 0.7524867 0.8430623 0.7899854 0.7111194 0.6836472 0.6489841
## Cluster 2 0.4022757 0.3789736 0.3771701 0.5120674 0.6300850 0.6868768 0.6460264
## Cluster 3 0.6660496 0.6721362 0.6780383 0.6748128 0.6211106 0.5987603 0.6214539
## Cluster 4 0.5913249 0.5585632 0.6352563 0.5868195 0.5970505 0.5814874 0.5259928
  Cluster 5 0.3487672 0.4169397 0.4429698 0.4185647 0.4941897 0.5678103 0.5689828
                 18137
                           18138
                                     18139
                                               18140
                                                          18141
                                                                    18142
                                                                              18143
## Cluster 1 0.6019973 0.6367812 0.6526658 0.6455955 0.6902003 0.5977905 0.5231950
## Cluster 2 0.5687067 0.6101349 0.6632815 0.7225718 0.7274575 0.6770176 0.5677918
## Cluster 3 0.6245560 0.6590312 0.6796809 0.6816241 0.7001787 0.6863943 0.6457206
## Cluster 4 0.4769025 0.4275162 0.4837653 0.4742238 0.5156643 0.4813863 0.4228375
## Cluster 5 0.4536724 0.4508147 0.5341940 0.5835431 0.7174224 0.7409267 0.7909612
##
                 18144
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## Cluster 1 0.4188196 0.3187533 0.2594231 0.2216379 0.1984191 0.1884257 0.1794496
## Cluster 2 0.4339296 0.3534487 0.2795015 0.2106158 0.1778270 0.1802053 0.1675924
## Cluster 3 0.5935716 0.4903773 0.4015972 0.3220170 0.2685021 0.2483660 0.2312496
## Cluster 4 0.3517942 0.2907256 0.2448989 0.2371119 0.2130686 0.2190939 0.2248989
## Cluster 5 0.6949871 0.5929267 0.4814526 0.4416509 0.3610603 0.3300733 0.2998491
                 18151
                           18152
                                     18153
                                               18154
                                                          18155
                                                                    18156
## Cluster 1 0.1703435 0.1650981 0.1710491 0.1634907 0.1735398 0.1822202 0.2055212
## Cluster 2 0.1601173 0.1523548 0.1544956 0.1505630 0.1760909 0.1994164 0.2521173
## Cluster 3 0.2278766 0.2135248 0.2122369 0.2137404 0.2190057 0.2213277 0.2393007
## Cluster 4 0.2104477 0.1924982 0.2105812 0.2668989 0.2696895 0.3009603 0.3565632
## Cluster 5 0.2378276 0.2445517 0.2541940 0.2376250 0.2366164 0.2227241 0.2778362
##
                 18158
                           18159
                                     18160
                                               18161
                                                          18162
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                                                                              18164
## Cluster 1 0.2272228 0.2948647 0.3598700 0.4423700 0.4692480 0.5531313 0.5670027
## Cluster 2 0.2816481 0.3618182 0.3950909 0.3287097 0.3222082 0.3115425 0.2697214
## Cluster 3 0.2456000 0.2714227 0.3050340 0.3507688 0.3762156 0.4200894 0.4599858
## Cluster 4 0.5490217 0.5795379 0.6283105 0.6377798 0.5461011 0.4552527 0.4055090
## Cluster 5 0.2677888 0.2919397 0.3547284 0.3498491 0.3906164 0.3862543 0.3548664
                 18165
                                                          18169
                           18166
                                     18167
                                               18168
                                                                    18170
                                                                              18171
## Cluster 1 0.5697666 0.5341512 0.4790305 0.4790398 0.4667666 0.4642135 0.4864496
## Cluster 2 0.2786510 0.2799032 0.2606921 0.2279824 0.2695660 0.2367361 0.2734575
## Cluster 3 0.4664837 0.4895532 0.5150468 0.5104255 0.5594922 0.5648255 0.5405546
## Cluster 4 0.3802563 0.3924801 0.4084946 0.3975343 0.4319603 0.4210289 0.4199097
## Cluster 5 0.3894138 0.3701034 0.3495862 0.3509612 0.3313750 0.3765517 0.4036638
                           18173
                                     18174
                                               18175
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                 18172
                                                                    18177
                                                                              18178
## Cluster 1 0.4612440 0.4424456 0.4624735 0.4249390 0.4327003 0.4819271 0.5478183
## Cluster 2 0.2746921 0.2817742 0.2687155 0.2558446 0.2814721 0.2798798 0.2944809
## Cluster 3 0.5169957 0.5227901 0.5020823 0.5104837 0.5333688 0.5774369 0.6699319
## Cluster 4 0.3929639 0.3668628 0.3997004 0.4593394 0.4549747 0.5112960 0.5831661
## Cluster 5 0.3715560 0.3610000 0.3163362 0.3389181 0.3295345 0.4064914 0.3495991
                           18180
##
                 18179
                                     18181
                                               18182
                                                          18183
                                                                    18184
                                                                              18185
## Cluster 1 0.6953607 0.8557573 0.8180371 0.7460822 0.7040305 0.6239549 0.6118369
## Cluster 2 0.3752845 0.4762551 0.5616481 0.5700469 0.6386334 0.6203167 0.5900968
## Cluster 3 0.6601191 0.6739546 0.6334411 0.6011660 0.6147560 0.5748823 0.5719433
## Cluster 4 0.5781733 0.5926426 0.6410144 0.5491913 0.5067473 0.5373574 0.5528700
## Cluster 5 0.3595302 0.3867457 0.4405216 0.4602672 0.4944698 0.4948448 0.4120388
##
                 18186
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                                               18189
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                                                                    18191
                                                                              18192
```

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## Cluster 1 0.5856127 0.6248422 0.6265385 0.6456512 0.6058873 0.5304284 0.4190106
## Cluster 2 0.6771114 0.7194457 0.6857625 0.7492727 0.6732405 0.5897654 0.4787126
## Cluster 3 0.6172355 0.6673390 0.6679830 0.7005504 0.6774383 0.6629106 0.5785986
## Cluster 4 0.5998195 0.4886390 0.4834079 0.5456101 0.4994116 0.4813213 0.4291516
## Cluster 5 0.4633750 0.4510345 0.5074526 0.6090776 0.6577672 0.6537500 0.6738621
                 18193
                           18194
                                     18195
                                               18196
                                                                    18198
##
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## Cluster 1 0.3377918 0.2576592 0.2276048 0.2079218 0.1945836 0.1886459 0.1714695
## Cluster 2 0.3572522 0.2557331 0.2151261 0.1893548 0.1680557 0.1631554 0.1576540
## Cluster 3 0.4783702 0.3847915 0.3178440 0.2649546 0.2434695 0.2262553 0.2229177
## Cluster 4 0.3560505 0.2850939 0.2551877 0.2124043 0.2056282 0.1968736 0.2044946
  Cluster 5 0.6335862 0.5066983 0.3890733 0.3262586 0.2800388 0.2769483 0.2463836
                                     18202
                 18200
                           18201
                                               18203
                                                         18204
                                                                    18205
                                                                              18206
## Cluster 1 0.1647374 0.1711260 0.1683289 0.1744549 0.1873515 0.1950676 0.2096592
## Cluster 2 0.1517801 0.1401789 0.1519941 0.1716129 0.1842757 0.2341525 0.2872111
## Cluster 3 0.2049603 0.2011645 0.2095972 0.2117702 0.2293106 0.2458709 0.2665390
## Cluster 4 0.1901119 0.2072455 0.2198809 0.2558917 0.3351769 0.3855379 0.6117906
## Cluster 5 0.2416940 0.2677629 0.2481983 0.2268578 0.2167457 0.2329871 0.2430862
##
                 18207
                           18208
                                     18209
                                               18210
                                                         18211
                                                                    18212
                                                                              18213
## Cluster 1 0.3005517 0.3569443 0.4733223 0.4985796 0.5131857 0.5614775 0.5428117
## Cluster 2 0.3529853 0.3636334 0.3663871 0.3785718 0.3200176 0.3000557 0.2892082
## Cluster 3 0.2827277 0.3046142 0.3495489 0.3755504 0.4172369 0.4059461 0.4220809
## Cluster 4 0.6444910 0.6507762 0.5926426 0.4993791 0.4851516 0.4350614 0.4449170
## Cluster 5 0.2895086 0.3810388 0.2993233 0.3405517 0.3252069 0.3105000 0.3434526
                 18214
                           18215
                                     18216
                                               18217
                                                          18218
                                                                    18219
## Cluster 1 0.5060385 0.5119416 0.4893594 0.5167706 0.5130889 0.5058011 0.4541631
## Cluster 2 0.2779824 0.2846921 0.2676100 0.2732493 0.2515806 0.2582053 0.2572669
## Cluster 3 0.4734695 0.5002695 0.4973475 0.5126766 0.5544426 0.6107986 0.5345177
## Cluster 4 0.4252780 0.4426029 0.4994043 0.5020866 0.4596390 0.4764116 0.4444910
## Cluster 5 0.3227500 0.3553362 0.3492759 0.3548060 0.4459267 0.3945991 0.3689353
                 18221
                           18222
                                     18223
                                               18224
                                                         18225
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                                                                              18227
## Cluster 1 0.4637069 0.4356260 0.4246379 0.4260902 0.5127321 0.5733422 0.7605345
## Cluster 2 0.2817859 0.2660674 0.2809326 0.2700029 0.2528035 0.3078592 0.3987419
## Cluster 3 0.5278156 0.5112596 0.5006028 0.5224270 0.5703532 0.6069957 0.6183461
## Cluster 4 0.4057798 0.4010289 0.4590903 0.4617942 0.4854404 0.5502960 0.5191336
## Cluster 5 0.3448233 0.3490603 0.3801853 0.3770905 0.3532371 0.3401034 0.3742457
                                                         18232
                 18228
                           18229
                                     18230
                                               18231
                                                                    18233
## Cluster 1 0.8161989 0.7580862 0.7157347 0.6776512 0.6501154 0.6503886 0.6252573
## Cluster 2 0.4102111 0.4887918 0.5945396 0.6370792 0.6010733 0.6363372 0.6550411
## Cluster 3 0.6146028 0.6125972 0.5813106 0.6083660 0.6020270 0.6255787 0.6053702
## Cluster 4 0.5955126 0.5876534 0.5169134 0.5968087 0.5188664 0.4982202 0.5164549
## Cluster 5 0.4268534 0.5165216 0.4657457 0.5019224 0.4639009 0.4095776 0.4437500
                 18235
                           18236
                                     18237
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                                                         18239
                                                                    18240
                                                                              18241
## Cluster 1 0.6443660 0.6408196 0.6436684 0.5906048 0.5237202 0.4016194 0.3341737
## Cluster 2 0.6874399 0.6684311 0.7177243 0.6943842 0.6005249 0.4710587 0.3415777
## Cluster 3 0.6346128 0.6423560 0.6660128 0.6407234 0.6395021 0.5664440 0.4504255
## Cluster 4 0.4819531 0.4799025 0.4945271 0.4472166 0.4266173 0.3850253 0.3249747
## Cluster 5 0.4963793 0.5454483 0.6108966 0.6435129 0.6852974 0.6540259 0.5803103
                           18243
##
                 18242
                                     18244
                                               18245
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                                                                    18247
                                                                              18248
## Cluster 1 0.2724085 0.2229271 0.1959483 0.1850199 0.1767812 0.1687851 0.1598859
## Cluster 2 0.2499824 0.2073754 0.1825601 0.1769384 0.1773050 0.1625777 0.1552786
## Cluster 3 0.3792099 0.3073702 0.2697489 0.2379631 0.2325021 0.2173631 0.2093277
## Cluster 4 0.2865632 0.2376498 0.2122599 0.2175632 0.2105271 0.2051552 0.1874043
## Cluster 5 0.4934741 0.3976509 0.3469440 0.2937931 0.2618750 0.2542069 0.2490517
##
                 18249
                           18250
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                                                                    18254
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```

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## Cluster 1 0.1609973 0.1595172 0.1708103 0.1877401 0.1965782 0.2162454 0.3042560
## Cluster 2 0.1588944 0.1584194 0.1761496 0.1906950 0.2372933 0.2632053 0.3692551
## Cluster 3 0.1973149 0.1948227 0.2088979 0.2119106 0.2417007 0.2484184 0.3036908
## Cluster 4 0.2065162 0.2395162 0.2698231 0.3381155 0.3856534 0.5123032 0.5468412
## Cluster 5 0.2580948 0.2261897 0.2305905 0.2298103 0.2274181 0.2803319 0.2815948
                 18256
                                     18258
                                               18259
                                                         18260
                                                                    18261
##
                           18257
## Cluster 1 0.3443210 0.4075358 0.4819907 0.5008740 0.5685451 0.5112480 0.5389058
## Cluster 2 0.3677977 0.3459443 0.3137449 0.2912170 0.3201554 0.2839413 0.3306452
## Cluster 3 0.3075872 0.3481660 0.3916610 0.4299319 0.4613262 0.5260426 0.4864553
## Cluster 4 0.6528845 0.6165090 0.4909278 0.4585307 0.4102924 0.3799856 0.3730108
  Cluster 5 0.3124009 0.3388664 0.4138836 0.3589138 0.3470603 0.3486767 0.3679914
                           18264
                                     18265
                 18263
                                               18266
                                                         18267
                                                                    18268
                                                                              18269
## Cluster 1 0.4843263 0.4658156 0.5169589 0.4938780 0.4870915 0.4771485 0.4158263
## Cluster 2 0.2992405 0.2956481 0.2781935 0.2601701 0.2968622 0.2977038 0.3082023
## Cluster 3 0.5137816 0.4863915 0.4945248 0.5318340 0.5401787 0.5115262 0.4825206
## Cluster 4 0.3874152 0.4030289 0.4256715 0.4126498 0.4201480 0.4071841 0.3810397
## Cluster 5 0.3175043 0.3503103 0.3810216 0.3799440 0.3777845 0.3918233 0.3404397
##
                 18270
                           18271
                                     18272
                                               18273
                                                         18274
                                                                    18275
                                                                              18276
## Cluster 1 0.4060743 0.4356154 0.4568979 0.5024589 0.5802188 0.6832361 0.7686645
## Cluster 2 0.2976979 0.2851290 0.2596745 0.2665953 0.3538065 0.4062845 0.4387243
## Cluster 3 0.4911277 0.5279589 0.5189092 0.6044383 0.6607716 0.6198156 0.6522823
## Cluster 4 0.4374224 0.4854693 0.4741300 0.5422058 0.5384260 0.6147690 0.6680433
## Cluster 5 0.3347328 0.3375129 0.3759914 0.3527241 0.3985388 0.4062241 0.4105862
                 18277
                           18278
                                     18279
                                               18280
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                                                                    18282
## Cluster 1 0.7411300 0.7238780 0.6843793 0.6503395 0.6567546 0.6031008 0.6289960
## Cluster 2 0.5473138 0.5808065 0.6474751 0.5936041 0.5807683 0.5538182 0.6153812
## Cluster 3 0.6724156 0.5957050 0.6225092 0.6242227 0.6121064 0.6165801 0.6236270
## Cluster 4 0.5792744 0.5474332 0.5382347 0.4777040 0.5000903 0.4772635 0.5356173
## Cluster 5 0.4323966 0.4388190 0.4793836 0.4096767 0.4470431 0.5132586 0.5281466
##
                 18284
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## Cluster 1 0.6206857 0.6354244 0.5826989 0.5048329 0.4191180 0.3193581 0.2541366
## Cluster 2 0.7267595 0.7127537 0.6473343 0.5668094 0.4580792 0.3416276 0.2942786
## Cluster 3 0.6806823 0.6781191 0.6886865 0.6138950 0.5397688 0.4514113 0.3896809
## Cluster 4 0.5729639 0.5486065 0.4878953 0.4327870 0.3544585 0.2973502 0.2524982
  Cluster 5 0.5771078 0.5630086 0.6205172 0.6383664 0.6902069 0.5879914 0.5005948
                           18292
                                     18293
                                                         18295
                 18291
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                                                                    18296
## Cluster 1 0.2179894 0.1840995 0.1863660 0.1759178 0.1692546 0.1619138 0.1669602
## Cluster 2 0.2307097 0.1947390 0.1893167 0.1774106 0.1680997 0.1525513 0.1491320
## Cluster 3 0.3396199 0.2981858 0.2653007 0.2439972 0.2236553 0.2199376 0.2088340
## Cluster 4 0.2359928 0.2073538 0.2057184 0.1937978 0.2082238 0.2036318 0.2133899
## Cluster 5 0.4206293 0.3546336 0.3218103 0.3245043 0.3105431 0.2911810 0.2647198
                 18298
                           18299
                                     18300
                                                         18302
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                                                                              18304
## Cluster 1 0.1669125 0.1725464 0.1782891 0.1901326 0.2181631 0.2655557 0.3691844
## Cluster 2 0.1556246 0.1761935 0.1915806 0.2135660 0.2871026 0.3324633 0.3644223
## Cluster 3 0.2097106 0.2154752 0.2147021 0.2275376 0.2578043 0.2852184 0.3134553
## Cluster 4 0.2269856 0.2511516 0.2983899 0.3625487 0.4995812 0.6418664 0.6240036
## Cluster 5 0.2528276 0.2495043 0.2423922 0.2529784 0.2934784 0.3498060 0.3301767
                           18306
                                     18307
                                                         18309
##
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                                               18308
                                                                    18310
                                                                              18311
## Cluster 1 0.4573833 0.4484483 0.4754496 0.5369629 0.5310159 0.5680782 0.5463090
## Cluster 2 0.4355132 0.3825836 0.3422786 0.3449472 0.3273372 0.3390088 0.3170235
## Cluster 3 0.3477674 0.3744128 0.3822213 0.4399603 0.4702638 0.4945262 0.5158667
## Cluster 4 0.6287076 0.5838628 0.4834368 0.4287978 0.4433394 0.4289386 0.4275668
## Cluster 5 0.3195862 0.3579440 0.3672888 0.3672845 0.3865431 0.3819526 0.4062802
##
                 18312
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```

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## Cluster 1 0.4939271 0.5078594 0.5296844 0.5228302 0.4946883 0.4775292 0.4613369
## Cluster 2 0.3000088 0.2874516 0.2715103 0.3043490 0.3219824 0.3372229 0.2847449
## Cluster 3 0.5174638 0.5611348 0.5589376 0.5579901 0.5192837 0.5310241 0.5380213
## Cluster 4 0.4143935 0.4014910 0.4366137 0.4623249 0.3927906 0.3632058 0.4374440
## Cluster 5 0.3656379 0.3879655 0.4020345 0.4120948 0.3873448 0.3728362 0.3557328
                                               18322
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##
                 18319
                           18320
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## Cluster 1 0.4638077 0.4574337 0.4726101 0.5497785 0.6952692 0.7738355 0.7499430
## Cluster 2 0.2885660 0.2998680 0.3279208 0.3466158 0.3787947 0.4163138 0.4855924
## Cluster 3 0.5157603 0.5336709 0.5675574 0.6097745 0.6382355 0.6267745 0.6345972
## Cluster 4 0.4492888 0.4735090 0.5196426 0.5481949 0.5764007 0.5780361 0.5915415
  Cluster 5 0.3448491 0.3203836 0.3345000 0.3193578 0.3747586 0.4028362 0.4309569
                                     18328
                 18326
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                                               18329
                                                          18330
                                                                    18331
                                                                              18332
## Cluster 1 0.6910159 0.6711817 0.6405332 0.6853435 0.6357772 0.6120451 0.6313859
## Cluster 2 0.5613255 0.6166188 0.6281114 0.6597097 0.6061642 0.6124692 0.6541994
## Cluster 3 0.6189461 0.6099702 0.6393177 0.5878908 0.5893546 0.6248809 0.6798950
## Cluster 4 0.5681191 0.5341480 0.5698448 0.5615415 0.4931733 0.4797834 0.5250253
## Cluster 5 0.5061078 0.4531379 0.4145733 0.4171638 0.4427241 0.4841724 0.5516724
##
                 18333
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## Cluster 1 0.6223196 0.5853276 0.5056485 0.4504960 0.3713369 0.3085995 0.2683780
## Cluster 2 0.6679824 0.6052405 0.5525806 0.4600000 0.3774282 0.3221613 0.2597243
## Cluster 3 0.6891376 0.6557461 0.6203035 0.5784950 0.4830823 0.4094723 0.3534553
## Cluster 4 0.5023502 0.4548195 0.4247545 0.4359783 0.3579531 0.3095596 0.2572455
## Cluster 5 0.6328319 0.6089224 0.6199698 0.6361853 0.5419267 0.4657759 0.4158491
                 18340
                           18341
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                                               18343
                                                          18344
                                                                    18345
## Cluster 1 0.2176180 0.2075464 0.1934019 0.1767613 0.1680265 0.1685305 0.1661485
## Cluster 2 0.2291554 0.1954487 0.1897214 0.1812317 0.1659384 0.1547097 0.1584487
## Cluster 3 0.3158709 0.2833518 0.2560440 0.2438667 0.2263943 0.2135603 0.2232312
## Cluster 4 0.2450072 0.2323430 0.2302022 0.2193755 0.2098736 0.2303935 0.2244982
## Cluster 5 0.3499440 0.3362026 0.3098707 0.2822543 0.2750733 0.2501336 0.2274095
##
                 18347
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                                               18350
                                                          18351
                                                                    18352
                                                                              18353
## Cluster 1 0.1694775 0.1692215 0.1854960 0.2025119 0.2455928 0.3139947 0.3703408
## Cluster 2 0.1727625 0.1724604 0.1740909 0.2037918 0.2237243 0.2797038 0.2938416
## Cluster 3 0.2114865 0.2151915 0.2449546 0.2344738 0.2344298 0.2579943 0.3038511
## Cluster 4 0.2534910 0.3058917 0.3586498 0.4195993 0.5098700 0.5704152 0.5865523
## Cluster 5 0.2093966 0.2266466 0.2317155 0.2514440 0.2788190 0.3033103 0.2956336
                           18355
                                     18356
                                               18357
                                                          18358
                 18354
                                                                    18359
## Cluster 1 0.4179416 0.5072944 0.5859164 0.5784748 0.6769032 0.6508607 0.6338077
## Cluster 2 0.3081349 0.3537097 0.3722493 0.4122434 0.4947390 0.4649941 0.4698886
## Cluster 3 0.3315305 0.4098440 0.4659787 0.5140028 0.5872851 0.6278128 0.6338369
## Cluster 4 0.5227834 0.5659711 0.5607256 0.6024152 0.5344801 0.4807906 0.5347076
## Cluster 5 0.3044095 0.3436595 0.3992629 0.3919224 0.3962198 0.4173276 0.4974914
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                                               18364
                                                          18365
                                                                    18366
                                                                              18367
## Cluster 1 0.6161751 0.5778554 0.5789271 0.5572507 0.5274072 0.5266817 0.5020371
## Cluster 2 0.4114633 0.3767067 0.4529355 0.4359912 0.4586657 0.4250029 0.3634457
## Cluster 3 0.6970610 0.6655135 0.6714000 0.6205362 0.6610440 0.5962823 0.5782610
## Cluster 4 0.5342383 0.4911877 0.4456679 0.4467437 0.4754043 0.4736318 0.5122202
## Cluster 5 0.4613707 0.4463147 0.4095388 0.4547112 0.4633060 0.3946681 0.3636422
                           18369
                                                          18372
##
                 18368
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                                               18371
                                                                    18373
                                                                              18374
## Cluster 1 0.5306459 0.5308408 0.5742095 0.6313355 0.7249615 0.7444231 0.6617613
## Cluster 2 0.3823695 0.3988006 0.4096921 0.4650850 0.5806686 0.5928358 0.5885425
## Cluster 3 0.5789277 0.5820738 0.6080426 0.6199092 0.6363589 0.6810440 0.6889518
## Cluster 4 0.5532996 0.5766318 0.5620217 0.5513827 0.5939856 0.6812455 0.6114801
## Cluster 5 0.4337112 0.3906767 0.4028534 0.4068966 0.4364440 0.4414741 0.4486897
##
                 18375
                           18376
                                     18377
                                               18378
                                                          18379
                                                                    18380
                                                                              18381
```

```
## Cluster 1 0.6543223 0.6400743 0.6485928 0.5877056 0.6151645 0.5999085 0.5941194
## Cluster 2 0.6109560 0.5751378 0.5838974 0.5168270 0.5154545 0.5620821 0.5644194
## Cluster 3 0.6245149 0.5933064 0.6298539 0.6494312 0.6417475 0.6714894 0.6737206
## Cluster 4 0.5859639 0.5088339 0.4844224 0.4769892 0.4684368 0.4471986 0.4590939
## Cluster 5 0.4434741 0.4193922 0.4753578 0.5290991 0.4725172 0.5267888 0.5985259
                 18382
                           18383
                                                         18386
##
                                     18384
                                               18385
                                                                    18387
## Cluster 1 0.5624642 0.4955570 0.4119231 0.3315332 0.2820623 0.2498541 0.2117241
## Cluster 2 0.5542434 0.4817390 0.3940587 0.3509179 0.3026862 0.2503783 0.2278886
## Cluster 3 0.6402511 0.5925660 0.5243518 0.4588695 0.3918652 0.3400624 0.3155489
## Cluster 4 0.4437653 0.3897834 0.3651841 0.3483610 0.2872816 0.2570397 0.2572491
  Cluster 5 0.6180991 0.5920474 0.5601767 0.5303836 0.4509698 0.4201250 0.3619698
                 18389
                           18390
                                     18391
                                               18392
                                                         18393
                                                                    18394
                                                                              18395
## Cluster 1 0.2154708 0.1992666 0.1719324 0.1721008 0.1700756 0.1677798 0.1628024
## Cluster 2 0.2078534 0.1939120 0.1761701 0.1632199 0.1531877 0.1595308 0.1662346
## Cluster 3 0.2866440 0.2672298 0.2503787 0.2297660 0.2220326 0.2118468 0.2117348
## Cluster 4 0.2455126 0.2161480 0.2286173 0.2218881 0.2255235 0.2443069 0.2697978
## Cluster 5 0.3288879 0.3304698 0.2895647 0.2750129 0.2801164 0.2413060 0.2277629
##
                 18396
                           18397
                                     18398
                                               18399
                                                         18400
                                                                    18401
                                                                              18402
## Cluster 1 0.1625637 0.1739297 0.1804416 0.1936605 0.2369509 0.2815968 0.3782679
## Cluster 2 0.1705044 0.1844487 0.1916716 0.2008358 0.2120997 0.2517947 0.2507771
## Cluster 3 0.2112411 0.2309206 0.2365418 0.2319957 0.2619688 0.2804709 0.3063546
## Cluster 4 0.3020903 0.3451552 0.4059783 0.4964477 0.4705560 0.4652888 0.4947798
## Cluster 5 0.2180431 0.2327328 0.2412672 0.2350000 0.2327974 0.2559957 0.2824267
                 18403
                           18404
                                     18405
                                               18406
                                                          18407
                                                                    18408
## Cluster 1 0.4560690 0.5485557 0.5924350 0.6295146 0.6903249 0.6790438 0.7618621
## Cluster 2 0.3442757 0.3824633 0.4668182 0.4861202 0.5381848 0.5143724 0.5234487
## Cluster 3 0.3919489 0.4396312 0.5434511 0.5968823 0.6843277 0.6555277 0.7097972
## Cluster 4 0.5035162 0.5804116 0.5866065 0.6486173 0.6044982 0.5729819 0.6267581
## Cluster 5 0.3271121 0.2981422 0.3755991 0.4077284 0.4048621 0.4102328 0.4021853
                 18410
                           18411
                                     18412
                                               18413
                                                         18414
                                                                    18415
                                                                              18416
## Cluster 1 0.7317719 0.7132706 0.7135849 0.6564735 0.6168316 0.5547241 0.5608700
## Cluster 2 0.4811672 0.4515279 0.4104985 0.4442786 0.4795279 0.4305601 0.4367273
## Cluster 3 0.7741957 0.7449830 0.7348156 0.6698113 0.6480397 0.6176809 0.6088667
## Cluster 4 0.6297292 0.5811444 0.5143285 0.4663791 0.4587292 0.4637509 0.4875487
  Cluster 5 0.4253060 0.4356078 0.3847586 0.4321078 0.4405862 0.4138621 0.4017198
                                     18419
                 18417
                           18418
                                               18420
                                                         18421
                                                                    18422
## Cluster 1 0.5796326 0.5840040 0.6018833 0.6447865 0.6523621 0.6334788 0.6118236
## Cluster 2 0.4980117 0.4507214 0.4278182 0.4311906 0.5286041 0.6243724 0.6030059
## Cluster 3 0.5731901 0.6004426 0.6138652 0.6322610 0.6302709 0.6539943 0.6062681
## Cluster 4 0.5133430 0.5299458 0.5568375 0.5358051 0.5532996 0.4572491 0.4775776
## Cluster 5 0.4324655 0.4156164 0.3958405 0.4035000 0.4064353 0.5002457 0.4540862
                 18424
                           18425
                                     18426
                                                         18428
                                                                    18429
                                               18427
                                                                              18430
## Cluster 1 0.5679456 0.5718130 0.5412387 0.5666021 0.5489191 0.5545385 0.5104456
## Cluster 2 0.5911496 0.6347830 0.6204135 0.5450792 0.5910821 0.5595660 0.5053812
## Cluster 3 0.6050908 0.5958028 0.5668681 0.6159816 0.6326369 0.6180241 0.6018667
## Cluster 4 0.4792202 0.4638664 0.4415848 0.5007437 0.4433971 0.4489964 0.4393069
## Cluster 5 0.4580431 0.4320647 0.4962672 0.5116983 0.5867500 0.5986983 0.5951379
##
                 18431
                           18432
                                     18433
                                               18434
                                                          18435
                                                                    18436
                                                                              18437
## Cluster 1 0.4494867 0.4080504 0.3356684 0.2759695 0.2296897 0.2073568 0.2050716
## Cluster 2 0.4737302 0.4251584 0.3651906 0.3004604 0.2512434 0.2267977 0.1952874
## Cluster 3 0.5892255 0.5215262 0.4626312 0.4135702 0.3536170 0.3105617 0.2827631
## Cluster 4 0.4279422 0.3518231 0.3182816 0.2590939 0.2531877 0.2447220 0.2349134
## Cluster 5 0.6122716 0.6011121 0.5176164 0.4661897 0.4124612 0.3844569 0.3491121
##
                 18438
                           18439
                                     18440
                                               18441
                                                          18442
                                                                    18443
                                                                              18444
```

```
## Cluster 1 0.1905477 0.1799218 0.1750862 0.1676777 0.1706021 0.1695557 0.1727706
## Cluster 2 0.1810587 0.1769091 0.1640557 0.1677361 0.1593490 0.1690499 0.1648651
## Cluster 3 0.2563972 0.2513745 0.2295560 0.2173064 0.2140979 0.2200723 0.2186184
## Cluster 4 0.2170217 0.2354260 0.2220578 0.2344549 0.2467509 0.2529675 0.2632166
## Cluster 5 0.3311638 0.2985043 0.2835517 0.2699698 0.2613147 0.2585690 0.2458750
                                               18448
                                                          18449
##
                 18445
                           18446
                                     18447
                                                                    18450
## Cluster 1 0.1687905 0.1764416 0.2023594 0.2359775 0.2562308 0.3229775 0.4271499
## Cluster 2 0.1738504 0.1878006 0.1936100 0.2044252 0.2282551 0.2705484 0.3073372
## Cluster 3 0.2173801 0.2302255 0.2296511 0.2235177 0.2471248 0.2839262 0.3478695
## Cluster 4 0.3090542 0.3754152 0.4358231 0.4790650 0.4531733 0.4726931 0.5303502
  Cluster 5 0.2238966 0.2468103 0.2591293 0.2434181 0.2341466 0.2551940 0.2913578
                 18452
                           18453
                                     18454
                                               18455
                                                          18456
                                                                    18457
                                                                              18458
## Cluster 1 0.4959496 0.6029191 0.7036870 0.7070584 0.6526883 0.6771300 0.6765438
## Cluster 2 0.3462111 0.3851261 0.4757361 0.4287537 0.4616833 0.4339326 0.5236422
## Cluster 3 0.4245021 0.4891830 0.5095901 0.5491035 0.6008298 0.6364950 0.6866440
## Cluster 4 0.5976318 0.5980217 0.5425704 0.5893827 0.5836282 0.6207798 0.5570794
## Cluster 5 0.3323750 0.3460043 0.3826121 0.4373793 0.4371767 0.4517888 0.4977672
##
                 18459
                           18460
                                     18461
                                               18462
                                                          18463
                                                                    18464
                                                                              18465
## Cluster 1 0.6410358 0.6380345 0.5951061 0.5088647 0.4992772 0.4978103 0.5523501
## Cluster 2 0.4972463 0.4808182 0.4967771 0.4402522 0.4393842 0.3912170 0.4572170
## Cluster 3 0.7098113 0.7176255 0.7308284 0.6303943 0.6238780 0.6341901 0.6228468
## Cluster 4 0.5493502 0.5287473 0.5206498 0.5038664 0.5334549 0.4891913 0.5742635
## Cluster 5 0.3898491 0.4162241 0.4087457 0.4471681 0.3697371 0.3965172 0.4506164
                 18466
                           18467
                                     18468
                                               18469
                                                          18470
                                                                    18471
## Cluster 1 0.6163090 0.7127905 0.7551220 0.7707759 0.6920279 0.6905040 0.6785424
## Cluster 2 0.4521026 0.4698534 0.5094927 0.5982405 0.6703871 0.6906334 0.6721584
## Cluster 3 0.6516879 0.6226738 0.6558043 0.6568979 0.6535702 0.6094553 0.6392809
## Cluster 4 0.6160289 0.5925162 0.5728881 0.5931047 0.5727726 0.5829350 0.5627798
## Cluster 5 0.4407759 0.4734871 0.4565819 0.4489181 0.5209095 0.5058879 0.4678060
##
                 18473
                           18474
                                     18475
                                               18476
                                                          18477
                                                                    18478
                                                                              18479
## Cluster 1 0.6703727 0.6629854 0.6772825 0.6687838 0.6262984 0.5570875 0.4693475
## Cluster 2 0.6201906 0.6287185 0.5954927 0.6030733 0.6679883 0.6290880 0.5560792
## Cluster 3 0.6206397 0.6273404 0.6319277 0.6683702 0.6713518 0.6439943 0.6106511
## Cluster 4 0.4918448 0.5094910 0.5322491 0.4851480 0.4780433 0.4709603 0.4051516
## Cluster 5 0.4807457 0.5241466 0.5253836 0.5955517 0.6075216 0.6269526 0.5894655
                                     18482
                 18480
                           18481
                                               18483
                                                          18484
                                                                    18485
                                                                              18486
## Cluster 1 0.4010252 0.3141406 0.2534934 0.2058196 0.1887347 0.1805225 0.1715942
## Cluster 2 0.4398270 0.3437625 0.2728446 0.2275513 0.1894868 0.1726891 0.1630850
## Cluster 3 0.5882681 0.4679021 0.3897787 0.3262723 0.2795801 0.2464567 0.2330340
## Cluster 4 0.3370000 0.3061877 0.2452130 0.2267473 0.2194224 0.2212527 0.2107690
## Cluster 5 0.5934095 0.5538190 0.5032155 0.4118405 0.3617414 0.3207586 0.2804224
                           18488
                                     18489
                                               18490
                                                          18491
                                                                    18492
                 18487
                                                                              18493
## Cluster 1 0.1692984 0.1605477 0.1559390 0.1616605 0.1687546 0.1819058 0.1830836
## Cluster 2 0.1515455 0.1434897 0.1489296 0.1435982 0.1618182 0.1972023 0.2287713
## Cluster 3 0.2153092 0.2155844 0.2104369 0.2064383 0.2068894 0.2089830 0.2250652
## Cluster 4 0.2135560 0.1952238 0.2045199 0.2199350 0.2614260 0.2922744 0.3997870
## Cluster 5 0.2469741 0.2558966 0.2557845 0.2181466 0.2313922 0.2403060 0.2390948
##
                 18494
                           18495
                                     18496
                                               18497
                                                          18498
                                                                    18499
                                                                              18500
## Cluster 1 0.2124549 0.2876737 0.3369987 0.4415265 0.4771698 0.4997414 0.5469098
## Cluster 2 0.2454457 0.3355777 0.3635073 0.3493636 0.2989208 0.2960704 0.3130264
## Cluster 3 0.2461348 0.2745801 0.3039546 0.3055546 0.3549050 0.3887319 0.4497191
## Cluster 4 0.5501769 0.6077798 0.6233682 0.6673791 0.6081480 0.5277870 0.4595199
## Cluster 5 0.2577543 0.2885345 0.3287112 0.3287069 0.2977931 0.3191552 0.3271767
##
                 18501
                           18502
                                     18503
                                               18504
                                                          18505
                                                                    18506
                                                                              18507
```

```
## Cluster 1 0.5188103 0.4691711 0.4997122 0.4887944 0.4742175 0.4992215 0.5068687
## Cluster 2 0.2624340 0.2793666 0.2834370 0.3039413 0.3173343 0.3087302 0.3060264
## Cluster 3 0.4959333 0.5180227 0.5564468 0.5116624 0.5399872 0.5519064 0.5926213
## Cluster 4 0.4578989 0.5317401 0.5023610 0.4191227 0.4541336 0.5020072 0.4595235
## Cluster 5 0.4087974 0.3497069 0.3624957 0.3684052 0.4112026 0.3902198 0.3920431
                 18508
                           18509
                                     18510
                                                         18512
                                                                    18513
##
                                               18511
## Cluster 1 0.4640928 0.4679775 0.4602334 0.4745928 0.4835318 0.4997931 0.6321883
## Cluster 2 0.2757097 0.2847801 0.2390264 0.2670938 0.2476569 0.2785161 0.2971994
## Cluster 3 0.5768468 0.5490809 0.5168326 0.5548057 0.5787660 0.6226596 0.6890823
## Cluster 4 0.4827004 0.4207292 0.4371516 0.4600830 0.4868448 0.5386318 0.6132347
  Cluster 5 0.3807759 0.4051595 0.4057845 0.3840043 0.3914526 0.4147759 0.4349267
                           18516
                                     18517
                 18515
                                               18518
                                                         18519
                                                                    18520
                                                                              18521
## Cluster 1 0.7792016 0.8725013 0.8228992 0.7519841 0.6838846 0.6653979 0.7006141
## Cluster 2 0.3541437 0.4909238 0.5612023 0.6089267 0.5919179 0.6323959 0.6307419
## Cluster 3 0.6724539 0.7353305 0.6620255 0.5858340 0.6269404 0.6068199 0.6054837
## Cluster 4 0.6787798 0.7321372 0.6568303 0.5972888 0.6084260 0.5595632 0.5085162
## Cluster 5 0.4872069 0.5463233 0.5533750 0.5332759 0.5125474 0.5067802 0.5040431
##
                 18522
                           18523
                                     18524
                                               18525
                                                         18526
                                                                    18527
                                                                              18528
## Cluster 1 0.6584854 0.6932732 0.7226883 0.6699576 0.5967347 0.5231074 0.4156870
## Cluster 2 0.6564106 0.7595865 0.7752023 0.7349560 0.6493871 0.5514575 0.4254047
## Cluster 3 0.6439376 0.7022709 0.7582355 0.7271489 0.6748028 0.6449589 0.5580383
## Cluster 4 0.4750614 0.5206570 0.5328014 0.5014838 0.4882780 0.4592238 0.3816354
## Cluster 5 0.5209009 0.6195431 0.6390345 0.6460086 0.6917586 0.6969009 0.7228879
                 18529
                           18530
                                     18531
                                               18532
                                                          18533
                                                                    18534
## Cluster 1 0.3026552 0.2528660 0.2052387 0.1925942 0.1863329 0.1734987 0.1593050
## Cluster 2 0.3213988 0.2548592 0.2218035 0.1930264 0.1638534 0.1608387 0.1508798
## Cluster 3 0.4922156 0.3988284 0.3275447 0.2728028 0.2380028 0.2222383 0.2200482
## Cluster 4 0.3200036 0.2664224 0.2414549 0.2330217 0.2281733 0.2030542 0.2259061
## Cluster 5 0.6049440 0.5169009 0.4124914 0.3494698 0.3279440 0.3148578 0.2698103
##
                 18536
                           18537
                                     18538
                                               18539
                                                         18540
                                                                    18541
                                                                              18542
## Cluster 1 0.1538753 0.1528395 0.1601419 0.1656936 0.1740371 0.1867003 0.2220928
## Cluster 2 0.1437742 0.1475953 0.1494399 0.1741701 0.2147859 0.2389267 0.2528152
## Cluster 3 0.2154199 0.1983035 0.1999291 0.2089362 0.2166312 0.2416156 0.2619305
## Cluster 4 0.2256173 0.2212671 0.2279495 0.2364549 0.3306895 0.4051841 0.5389242
## Cluster 5 0.2485776 0.2455905 0.2181034 0.2481810 0.2295216 0.2502414 0.2539914
                           18544
                                     18545
                                               18546
                 18543
                                                         18547
                                                                    18548
## Cluster 1 0.2968143 0.3732414 0.4598687 0.4878077 0.5222971 0.5230769 0.5564456
## Cluster 2 0.3712757 0.3892434 0.3704340 0.3345513 0.2779677 0.2961408 0.2994985
## Cluster 3 0.2692440 0.2865277 0.3095787 0.3391390 0.3841106 0.4318638 0.4639092
## Cluster 4 0.6367148 0.6460108 0.6683646 0.5126823 0.4741552 0.4617184 0.4557762
## Cluster 5 0.2816509 0.3524267 0.3511379 0.3903879 0.3177198 0.3670302 0.3387069
                 18550
                           18551
                                     18552
                                               18553
                                                         18554
                                                                    18555
                                                                              18556
## Cluster 1 0.5363912 0.5044244 0.5085411 0.5265477 0.5314761 0.5433899 0.4848329
## Cluster 2 0.2739208 0.2582991 0.2944809 0.2884839 0.2691906 0.2968592 0.3191173
## Cluster 3 0.4949277 0.5533504 0.5207645 0.5746723 0.5781461 0.5799560 0.5468794
## Cluster 4 0.4349892 0.4173718 0.4381986 0.3955126 0.4132094 0.4567329 0.4136895
## Cluster 5 0.3364397 0.3483060 0.3546983 0.3616207 0.3875560 0.4112112 0.3912759
                           18558
                                     18559
##
                 18557
                                               18560
                                                          18561
                                                                    18562
                                                                              18563
## Cluster 1 0.4405928 0.4225796 0.4450385 0.4725836 0.4933223 0.5392188 0.6838515
## Cluster 2 0.2782933 0.2641906 0.2384516 0.2388651 0.3015601 0.3288710 0.3514985
## Cluster 3 0.5795362 0.5339348 0.5235390 0.5758156 0.6155943 0.6229702 0.6219645
## Cluster 4 0.4518520 0.4330433 0.4369856 0.4659206 0.5232852 0.5710036 0.6119567
## Cluster 5 0.3428922 0.3760517 0.4053448 0.3950690 0.3649828 0.3372155 0.3477716
##
                 18564
                           18565
                                     18566
                                               18567
                                                         18568
                                                                    18569
                                                                              18570
```

```
## Cluster 1 0.8198886 0.7432042 0.6681273 0.6586499 0.6531923 0.6248714 0.6396645
## Cluster 2 0.4807537 0.5615484 0.6295513 0.6436070 0.6954457 0.6560352 0.6252757
## Cluster 3 0.6623050 0.6404284 0.6236596 0.6338184 0.6435418 0.6547248 0.6869943
## Cluster 4 0.6773394 0.6293141 0.5741805 0.5193574 0.5347148 0.5144116 0.4739134
## Cluster 5 0.4494914 0.4998060 0.5009526 0.5443405 0.4863922 0.4695733 0.5106164
                           18572
##
                 18571
                                     18573
                                               18574
                                                         18575
                                                                    18576
## Cluster 1 0.6615942 0.6770902 0.6686499 0.5740782 0.4851976 0.3830584 0.2869655
## Cluster 2 0.7234839 0.7908270 0.7975865 0.7388328 0.5858680 0.4794809 0.3419120
## Cluster 3 0.7048369 0.7207348 0.7691206 0.7258156 0.6810567 0.5852227 0.4944099
## Cluster 4 0.5216498 0.5122491 0.5281119 0.4572022 0.4124007 0.3664116 0.3240578
  Cluster 5 0.5724310 0.5992414 0.6408922 0.6302586 0.6852759 0.6554009 0.5398276
                           18579
                 18578
                                     18580
                                               18581
                                                         18582
                                                                    18583
                                                                              18584
## Cluster 1 0.2433820 0.2025902 0.1831817 0.1723422 0.1752228 0.1621790 0.1550703
## Cluster 2 0.2804311 0.2228387 0.1900381 0.1654575 0.1574897 0.1550088 0.1403783
## Cluster 3 0.3928028 0.3403106 0.2778156 0.2486652 0.2355177 0.2337645 0.2150936
## Cluster 4 0.2869711 0.2518953 0.2163502 0.2125487 0.1995668 0.2274513 0.2033069
## Cluster 5 0.4774914 0.4195517 0.3521078 0.2866724 0.2701724 0.2453966 0.2352543
##
                 18585
                           18586
                                     18587
                                               18588
                                                         18589
                                                                    18590
                                                                              18591
## Cluster 1 0.1545610 0.1547599 0.1612507 0.1704642 0.1929032 0.2233966 0.2845597
## Cluster 2 0.1432258 0.1557478 0.1809296 0.1980616 0.2466510 0.2618856 0.3579120
## Cluster 3 0.2010496 0.2048837 0.2110355 0.2183773 0.2369504 0.2521376 0.2843461
## Cluster 4 0.2051119 0.2278700 0.2535884 0.3099206 0.4169422 0.5342347 0.6291119
## Cluster 5 0.2266767 0.2089095 0.2391207 0.2371810 0.2215086 0.2676897 0.2652543
                 18592
                           18593
                                     18594
                                               18595
                                                          18596
                                                                    18597
## Cluster 1 0.4025610 0.4780610 0.4903607 0.5329881 0.5409987 0.5394721 0.4745438
## Cluster 2 0.3708446 0.3558974 0.3521935 0.2883402 0.3411965 0.3215308 0.2942874
## Cluster 3 0.2988213 0.3436028 0.3812113 0.4147759 0.4847901 0.4768241 0.4758142
## Cluster 4 0.6078989 0.6073249 0.6028303 0.5115235 0.4334585 0.4491011 0.4459892
## Cluster 5 0.3361810 0.3630345 0.3721853 0.3483319 0.3654914 0.3620776 0.3265819
##
                 18599
                           18600
                                     18601
                                               18602
                                                         18603
                                                                    18604
                                                                              18605
## Cluster 1 0.4791313 0.4610637 0.4783462 0.4963621 0.4991207 0.4334920 0.4074576
## Cluster 2 0.2756745 0.2454370 0.2709443 0.2901408 0.3168651 0.2640029 0.2720587
## Cluster 3 0.4776553 0.5017035 0.5201574 0.5677617 0.5752979 0.5473929 0.5238142
## Cluster 4 0.4144296 0.4353177 0.4237437 0.4441444 0.4590000 0.3902599 0.4050253
  Cluster 5 0.3547586 0.3784784 0.3846767 0.3604655 0.4197802 0.3616078 0.3252716
                                     18608
                                                         18610
                 18606
                           18607
                                               18609
                                                                    18611
## Cluster 1 0.4253024 0.4172215 0.4250637 0.4946074 0.5720000 0.7589125 0.8384058
## Cluster 2 0.2618387 0.2498680 0.2558387 0.2644633 0.3153460 0.3968240 0.4663636
## Cluster 3 0.5362340 0.5574865 0.5796468 0.6004936 0.6354652 0.6535929 0.6825603
## Cluster 4 0.3985162 0.4523213 0.4182744 0.5407653 0.5389134 0.5869134 0.6604910
## Cluster 5 0.3333190 0.3308922 0.3050862 0.3100862 0.3420431 0.4463405 0.4156638
                           18614
                                     18615
                                               18616
                                                         18617
                 18613
                                                                    18618
                                                                              18619
## Cluster 1 0.8136552 0.7083369 0.7041883 0.6338223 0.6267997 0.6286499 0.6546499
## Cluster 2 0.5097419 0.6056452 0.6458622 0.6216481 0.6689619 0.6939091 0.7520733
## Cluster 3 0.6697858 0.6721390 0.6727660 0.6599589 0.6429277 0.6632723 0.6974184
## Cluster 4 0.6282780 0.5631119 0.5288014 0.5818809 0.4590000 0.4740505 0.5471841
## Cluster 5 0.4396034 0.4930474 0.5324957 0.4943060 0.4733793 0.4917198 0.5690302
                 18620
                                                          18624
##
                           18621
                                     18622
                                               18623
                                                                    18625
                                                                              18626
## Cluster 1 0.6816353 0.6855690 0.6004045 0.5092533 0.4111976 0.3125968 0.2511578
## Cluster 2 0.7834106 0.7612170 0.7085073 0.6138739 0.4587038 0.3314751 0.2716891
## Cluster 3 0.7686695 0.7724312 0.6886908 0.6307177 0.5676312 0.4710794 0.3900014
## Cluster 4 0.5666390 0.5577870 0.4185812 0.3991986 0.3584079 0.2982202 0.2830325
## Cluster 5 0.5882888 0.6467759 0.6653147 0.6726164 0.6916983 0.5974914 0.5074397
##
                 18627
                           18628
                                     18629
                                               18630
                                                          18631
                                                                    18632
                                                                              18633
```

```
## Cluster 1 0.2189377 0.1853435 0.1721631 0.1725743 0.1642812 0.1610942 0.1563170
## Cluster 2 0.2470821 0.1962082 0.1806217 0.1723490 0.1582199 0.1568182 0.1628006
## Cluster 3 0.3230596 0.2761603 0.2539674 0.2311078 0.2182468 0.2151319 0.2029362
## Cluster 4 0.2482744 0.2321949 0.2196354 0.2038267 0.2203357 0.2094332 0.2190758
## Cluster 5 0.4101552 0.3264483 0.2951681 0.2908103 0.2834095 0.2625474 0.2495431
                 18634
                           18635
                                     18636
                                                          18638
                                                                    18639
##
                                               18637
## Cluster 1 0.1629562 0.1781180 0.1805637 0.1799151 0.2208660 0.2604138 0.3374536
## Cluster 2 0.1501965 0.1855543 0.1942991 0.2872698 0.2876891 0.3301818 0.3679795
## Cluster 3 0.2068979 0.2193262 0.2239348 0.2380128 0.2572255 0.2907645 0.3038213
## Cluster 4 0.2368303 0.2721913 0.3137726 0.3908087 0.4808700 0.5695668 0.6314260
  Cluster 5 0.2475690 0.2712112 0.2517888 0.2623491 0.2612974 0.2847026 0.3265000
                           18642
                                     18643
                 18641
                                               18644
                                                          18645
                                                                    18646
                                                                              18647
## Cluster 1 0.4655862 0.4911684 0.4700769 0.5229350 0.5187467 0.4840716 0.5092414
## Cluster 2 0.4010293 0.3901144 0.2823109 0.3301232 0.3051848 0.3210850 0.3075367
## Cluster 3 0.3242638 0.3622199 0.3982113 0.4305050 0.4592000 0.4711092 0.4763957
## Cluster 4 0.5981986 0.6214946 0.4881191 0.4402599 0.4495776 0.4404404 0.4843141
## Cluster 5 0.3435905 0.3526078 0.3585000 0.3708793 0.3172241 0.3460474 0.3445345
##
                 18648
                           18649
                                     18650
                                               18651
                                                          18652
                                                                    18653
                                                                              18654
## Cluster 1 0.5066645 0.5026074 0.5299178 0.4833117 0.4447944 0.4299430 0.4482560
## Cluster 2 0.2700293 0.2717185 0.2762346 0.2935953 0.3099150 0.3099208 0.2635543
## Cluster 3 0.4721504 0.5052681 0.6075972 0.5819645 0.5563532 0.5610965 0.5388709
## Cluster 4 0.4725884 0.5130686 0.4822419 0.4775235 0.4326679 0.3816390 0.4274368
## Cluster 5 0.3825474 0.4296897 0.4058190 0.4404871 0.4390991 0.3663319 0.3403233
                 18655
                           18656
                                     18657
                                               18658
                                                          18659
                                                                    18660
## Cluster 1 0.4350584 0.4618873 0.4711061 0.5864814 0.6999045 0.7738024 0.7533979
## Cluster 2 0.2802845 0.2817038 0.3150029 0.3775279 0.4362053 0.5039883 0.5160411
## Cluster 3 0.5510865 0.5819007 0.6254511 0.6472894 0.6551149 0.6260454 0.6321447
## Cluster 4 0.4616751 0.4617184 0.5243466 0.5777545 0.5821841 0.6111083 0.6637292
## Cluster 5 0.3548362 0.3234655 0.3783319 0.3930086 0.4014483 0.4974397 0.4894526
##
                 18662
                           18663
                                     18664
                                               18665
                                                          18666
                                                                    18667
                                                                              18668
## Cluster 1 0.7062361 0.6600133 0.6739350 0.6286247 0.6377056 0.6421645 0.6273515
## Cluster 2 0.5646481 0.6295689 0.6973196 0.6739941 0.6129941 0.6320381 0.6123842
## Cluster 3 0.6369532 0.6248809 0.6621674 0.6471560 0.6340014 0.6945929 0.7611248
## Cluster 4 0.5634188 0.5784404 0.4819242 0.5435451 0.5041155 0.5017256 0.4871588
## Cluster 5 0.4092586 0.5016207 0.5376767 0.5014310 0.4968836 0.5814009 0.6604483
                 18669
                           18670
                                     18671
                                               18672
                                                          18673
                                                                    18674
                                                                              18675
## Cluster 1 0.6161552 0.5383687 0.4713475 0.4057679 0.3340995 0.2732878 0.2279151
## Cluster 2 0.6311320 0.5832199 0.5257038 0.4397713 0.3558827 0.3026129 0.2397273
## Cluster 3 0.7199461 0.6721574 0.6356241 0.5390397 0.4912482 0.4326355 0.3646468
## Cluster 4 0.5118773 0.4419964 0.4046029 0.3973141 0.3391300 0.2933032 0.2831047
## Cluster 5 0.6476638 0.6253922 0.6596595 0.5861810 0.5422543 0.4674052 0.4076034
                                     18678
                                               18679
                                                          18680
                 18676
                           18677
                                                                    18681
                                                                              18682
## Cluster 1 0.2087188 0.1968607 0.1883581 0.1813276 0.1749218 0.1649801 0.1670690
## Cluster 2 0.2103196 0.1929208 0.2004457 0.1717683 0.1592141 0.1531202 0.1570176
## Cluster 3 0.3159915 0.2813106 0.2476298 0.2358709 0.2235830 0.2052000 0.2059518
## Cluster 4 0.2442527 0.2143502 0.2160542 0.2303430 0.2223827 0.2194332 0.2277581
## Cluster 5 0.3610776 0.3295733 0.3110905 0.3054224 0.2615259 0.2412241 0.2252759
                 18683
                           18684
                                     18685
##
                                               18686
                                                          18687
                                                                    18688
                                                                              18689
## Cluster 1 0.1731154 0.1733196 0.1825981 0.1875013 0.2068488 0.2757427 0.3479509
## Cluster 2 0.1805718 0.1792933 0.2090645 0.2048270 0.2270176 0.2414516 0.2913636
## Cluster 3 0.2074383 0.2179376 0.2224270 0.2300681 0.2441872 0.2483234 0.2877532
## Cluster 4 0.2500144 0.2883935 0.3434188 0.4296029 0.4817545 0.5108773 0.5303899
## Cluster 5 0.2467672 0.2265862 0.2225991 0.2359267 0.2405690 0.2963017 0.2786293
##
                 18690
                           18691
                                     18692
                                               18693
                                                          18694
                                                                    18695
                                                                              18696
```

```
## Cluster 1 0.4169655 0.4740743 0.6117706 0.6386048 0.6695531 0.6437082 0.6140756
## Cluster 2 0.3742698 0.3995865 0.4519853 0.4327361 0.4223196 0.4261408 0.4084663
## Cluster 3 0.3268780 0.4155475 0.4662142 0.5542638 0.5799532 0.6005546 0.6582270
## Cluster 4 0.5591986 0.5870830 0.5378628 0.5652419 0.5158412 0.5162996 0.4911300
## Cluster 5 0.3138190 0.3699052 0.3705259 0.4148879 0.4117888 0.4609957 0.3954741
                 18697
                           18698
                                     18699
                                               18700
                                                          18701
                                                                    18702
##
                                                                              18703
## Cluster 1 0.5938621 0.6065464 0.5917825 0.5884377 0.5735212 0.5330305 0.5214695
## Cluster 2 0.4271026 0.4262698 0.4086833 0.3908534 0.4143988 0.4102581 0.3955660
## Cluster 3 0.6579943 0.6747262 0.6543688 0.5963887 0.5880241 0.5778709 0.5818624
## Cluster 4 0.5606354 0.4781372 0.4827509 0.5026426 0.5329061 0.4792924 0.5099675
  Cluster 5 0.4412371 0.4473750 0.4737759 0.4258233 0.3847414 0.3901207 0.3850690
                 18704
                           18705
                                     18706
                                               18707
                                                          18708
                                                                    18709
                                                                              18710
## Cluster 1 0.4920729 0.5146976 0.5568806 0.6625411 0.7497082 0.7444151 0.6921936
## Cluster 2 0.4198651 0.4199912 0.3833812 0.4106569 0.5321496 0.5962170 0.6485748
## Cluster 3 0.5812723 0.5711390 0.6133745 0.6644411 0.7025546 0.6933943 0.6645362
## Cluster 4 0.4851444 0.6241119 0.6133682 0.6399025 0.7008520 0.7101227 0.5793105
## Cluster 5 0.3931681 0.3848147 0.4744483 0.4183621 0.4768534 0.4567155 0.4460603
##
                 18711
                           18712
                                     18713
                                               18714
                                                          18715
                                                                    18716
                                                                              18717
## Cluster 1 0.6915438 0.6429562 0.6380199 0.5568329 0.5591260 0.5918435 0.6007016
## Cluster 2 0.6502053 0.6712434 0.6226774 0.5966862 0.6422493 0.6168886 0.6029179
## Cluster 3 0.6402170 0.6455745 0.6244525 0.6156582 0.6583376 0.6623475 0.6393291
## Cluster 4 0.5637184 0.5494296 0.4586643 0.4320866 0.5041552 0.5018303 0.4984368
## Cluster 5 0.4748621 0.4983707 0.5319052 0.4830388 0.5340302 0.6073319 0.5683233
                 18718
                           18719
                                     18720
                                               18721
                                                          18722
                                                                    18723
## Cluster 1 0.5285345 0.4715981 0.4174682 0.3321286 0.2720159 0.2360796 0.2079695
## Cluster 2 0.6045865 0.5320645 0.4499208 0.3834340 0.3336979 0.2867009 0.2305543
## Cluster 3 0.6258454 0.5951702 0.5524809 0.4800426 0.4109319 0.3488667 0.3142397
## Cluster 4 0.4585379 0.3754729 0.3500686 0.3180108 0.2925560 0.2514152 0.2513538
## Cluster 5 0.5996121 0.5773793 0.6083405 0.5634181 0.4989612 0.4463491 0.3767543
##
                 18725
                           18726
                                     18727
                                               18728
                                                          18729
                                                                    18730
                                                                              18731
## Cluster 1 0.1954894 0.1802188 0.1746671 0.1661247 0.1649642 0.1618607 0.1613488
## Cluster 2 0.2032933 0.1874927 0.1724282 0.1739853 0.1606569 0.1507331 0.1760499
## Cluster 3 0.2797716 0.2534043 0.2393234 0.2377149 0.2194241 0.2156965 0.2110794
## Cluster 4 0.2310866 0.2245018 0.2207798 0.2282888 0.2543791 0.2377437 0.2501227
## Cluster 5 0.3035259 0.3292802 0.3254741 0.2791293 0.2905603 0.2421509 0.2406983
                                                          18736
                                     18734
                                               18735
                 18732
                           18733
                                                                    18737
                                                                              18738
## Cluster 1 0.1707215 0.1719244 0.1814271 0.2202122 0.2511485 0.3265610 0.3829191
## Cluster 2 0.1758974 0.1878974 0.1988270 0.1908416 0.2133343 0.2425924 0.2900205
## Cluster 3 0.2065404 0.2201035 0.2233844 0.2224298 0.2466241 0.2999645 0.3199730
## Cluster 4 0.2626354 0.3532238 0.3551986 0.4516715 0.4690108 0.5094838 0.5248520
## Cluster 5 0.2415431 0.2364914 0.2623276 0.2606810 0.2994483 0.3518060 0.3611638
                 18739
                           18740
                                     18741
                                               18742
                                                          18743
                                                                    18744
                                                                              18745
## Cluster 1 0.5318753 0.6378966 0.6443355 0.6219257 0.6651273 0.6917520 0.6807586
## Cluster 2 0.3751232 0.3845132 0.4100792 0.4543695 0.4793431 0.4958798 0.4939091
## Cluster 3 0.3656369 0.4196752 0.5303319 0.6280298 0.6103305 0.6853574 0.6968128
## Cluster 4 0.6152888 0.6044585 0.6151733 0.5669458 0.5864043 0.5601552 0.5904729
## Cluster 5 0.3616983 0.4314483 0.4052457 0.3993233 0.4853836 0.4299698 0.5139310
                                                          18750
##
                 18746
                           18747
                                     18748
                                               18749
                                                                    18751
                                                                              18752
## Cluster 1 0.7040212 0.6440809 0.5993594 0.5700305 0.5582042 0.5464324 0.4920451
## Cluster 2 0.5069589 0.4604516 0.4127097 0.4470323 0.4469765 0.4232610 0.4198739
## Cluster 3 0.6847277 0.7181035 0.6922184 0.6662028 0.6123475 0.6456780 0.6051489
## Cluster 4 0.5048484 0.5506931 0.4739350 0.4440108 0.4436823 0.4038664 0.4697978
## Cluster 5 0.5094612 0.4484052 0.4359914 0.4226336 0.4242888 0.4585560 0.4403491
##
                 18753
                           18754
                                     18755
                                               18756
                                                          18757
                                                                    18758
                                                                              18759
```

```
## Cluster 1 0.5077029 0.5153581 0.5583196 0.5988435 0.6102003 0.5928462 0.5918714
## Cluster 2 0.4263666 0.4086569 0.4632023 0.4817683 0.5625748 0.5902933 0.6082434
## Cluster 3 0.6147901 0.5916738 0.5776922 0.5960965 0.6034170 0.5815390 0.5835603
## Cluster 4 0.5635235 0.5917653 0.4885884 0.5489531 0.5220722 0.4857112 0.5472202
## Cluster 5 0.4313362 0.4544009 0.4202155 0.4390000 0.4639224 0.4753190 0.4668750
                 18760
                           18761
                                     18762
                                                          18764
##
                                               18763
                                                                    18765
                                                                              18766
## Cluster 1 0.5984032 0.5833753 0.6052984 0.6249231 0.6096830 0.5837533 0.5279377
## Cluster 2 0.5950029 0.5959912 0.6046393 0.6483167 0.6850352 0.6630762 0.5920792
## Cluster 3 0.5810085 0.5824170 0.6305688 0.6773305 0.7058170 0.7097078 0.6732014
## Cluster 4 0.5515090 0.4707292 0.4519639 0.5096823 0.5046209 0.4594332 0.4674296
  Cluster 5 0.4273405 0.4922371 0.5561207 0.5923276 0.6129267 0.6035733 0.6334095
                                     18769
                           18768
                 18767
                                               18770
                                                          18771
                                                                    18772
                                                                              18773
## Cluster 1 0.4399748 0.3712719 0.2996286 0.2384244 0.2022984 0.1855968 0.1775332
## Cluster 2 0.5473842 0.4463460 0.3508680 0.2848299 0.2247713 0.1982287 0.1761701
## Cluster 3 0.6226766 0.5408539 0.4602440 0.4071489 0.3353532 0.2842241 0.2576227
## Cluster 4 0.3896245 0.3365126 0.2877329 0.2644477 0.2411264 0.2246318 0.2190108
## Cluster 5 0.6674397 0.5920172 0.5361767 0.4767931 0.4258276 0.3540517 0.3230172
##
                 18774
                           18775
                                     18776
                                               18777
                                                          18778
                                                                    18779
                                                                              18780
## Cluster 1 0.1751141 0.1628859 0.1612149 0.1555637 0.1649576 0.1683103 0.1780252
## Cluster 2 0.1727155 0.1647830 0.1572463 0.1612317 0.1584428 0.1684106 0.2005161
## Cluster 3 0.2377206 0.2213915 0.2130000 0.2130270 0.2157305 0.2151546 0.2203050
## Cluster 4 0.2001264 0.2153032 0.1961372 0.2090217 0.2482744 0.2748664 0.3254729
## Cluster 5 0.2788793 0.2761983 0.2544914 0.2447026 0.2285905 0.2435905 0.2546681
                 18781
                           18782
                                     18783
                                               18784
                                                          18785
                                                                    18786
## Cluster 1 0.1868064 0.1994549 0.2564509 0.3319814 0.4526393 0.4419947 0.4872785
## Cluster 2 0.2437830 0.2667009 0.3394809 0.3485572 0.3468651 0.3583021 0.3429648
## Cluster 3 0.2495248 0.2988879 0.2972340 0.3018596 0.3199674 0.3429064 0.3921943
## Cluster 4 0.4133574 0.4659675 0.6075343 0.6243827 0.6514765 0.6221733 0.5361119
## Cluster 5 0.2409784 0.2561983 0.2880345 0.3273966 0.3259310 0.3676983 0.3212974
##
                 18788
                           18789
                                     18790
                                               18791
                                                          18792
                                                                    18793
                                                                              18794
## Cluster 1 0.5158050 0.5016313 0.5264549 0.5114284 0.4969920 0.5145438 0.5076048
## Cluster 2 0.3245630 0.3088827 0.3137742 0.3104545 0.3161730 0.2826833 0.3107801
## Cluster 3 0.4056908 0.4443872 0.4795404 0.5084709 0.5004255 0.5399872 0.5704383
## Cluster 4 0.5266462 0.5210469 0.4747040 0.4471733 0.4978773 0.4456931 0.3880217
  Cluster 5 0.3623578 0.3826681 0.3395647 0.3949353 0.3757888 0.4214095 0.3953060
                           18796
                                                          18799
                 18795
                                     18797
                                               18798
                                                                    18800
                                                                              18801
## Cluster 1 0.5499178 0.4911088 0.4778846 0.4530836 0.4408342 0.4469297 0.5111233
## Cluster 2 0.3284751 0.3339091 0.2940880 0.3100880 0.3173431 0.2858475 0.2930147
## Cluster 3 0.5968539 0.5573475 0.5441489 0.5364227 0.5554738 0.5672582 0.6029234
## Cluster 4 0.4587220 0.4336209 0.4911047 0.5099783 0.5136137 0.5139097 0.6000722
## Cluster 5 0.3905560 0.3883060 0.3809310 0.3585517 0.3725819 0.3787888 0.3817112
                 18802
                           18803
                                     18804
                                               18805
                                                          18806
                                                                    18807
                                                                              18808
## Cluster 1 0.5958289 0.7593422 0.9069775 0.8055703 0.7154430 0.7086406 0.6106048
## Cluster 2 0.3144457 0.3784545 0.4747654 0.5711760 0.6342903 0.6453607 0.6715279
## Cluster 3 0.7165702 0.7097149 0.6388454 0.6628539 0.5898028 0.6349220 0.5960270
## Cluster 4 0.6174549 0.6205596 0.7541264 0.6979314 0.5984982 0.5596245 0.5982708
## Cluster 5 0.3809698 0.4620819 0.4163448 0.5030603 0.4488836 0.5454612 0.4610733
                 18809
##
                           18810
                                     18811
                                               18812
                                                          18813
                                                                    18814
                                                                              18815
## Cluster 1 0.6199655 0.6155836 0.6521127 0.6997042 0.6499682 0.5797480 0.4943780
## Cluster 2 0.6199032 0.6202962 0.6636774 0.7307654 0.7630587 0.6786716 0.5489091
## Cluster 3 0.6070936 0.5957177 0.6639106 0.7584397 0.7580255 0.6908099 0.6703121
## Cluster 4 0.5474657 0.4907726 0.5056643 0.5157365 0.5437978 0.4986209 0.4555884
## Cluster 5 0.4579483 0.4617759 0.5555302 0.5744914 0.6482155 0.6395388 0.7387414
##
                 18816
                           18817
                                     18818
                                               18819
                                                          18820
                                                                    18821
                                                                              18822
```

```
## Cluster 1 0.4049244 0.2927334 0.2391419 0.2054549 0.1812241 0.1767785 0.1668674
## Cluster 2 0.4349443 0.3269971 0.2748504 0.2299736 0.1999824 0.1955132 0.1690029
## Cluster 3 0.5929589 0.4653021 0.3752482 0.3140411 0.2556652 0.2392014 0.2395560
## Cluster 4 0.3852455 0.3265054 0.2746209 0.2362202 0.2190614 0.2099531 0.1971083
## Cluster 5 0.6964741 0.5751595 0.4811724 0.4196293 0.3245388 0.2847026 0.2916034
                 18823
                           18824
                                               18826
                                                          18827
                                                                    18828
##
                                     18825
## Cluster 1 0.1663024 0.1558170 0.1629310 0.1541923 0.1671857 0.1839841 0.2058475
## Cluster 2 0.1674780 0.1556833 0.1575894 0.1642991 0.1838182 0.1962522 0.2720323
## Cluster 3 0.2126794 0.2141035 0.2097730 0.2170567 0.2160950 0.2245986 0.2413418
## Cluster 4 0.2004621 0.2027148 0.2024838 0.2335884 0.2725343 0.3101877 0.4015379
  Cluster 5 0.2760086 0.2532155 0.2425216 0.2236767 0.2400043 0.2225647 0.2361767
                                     18832
                 18830
                           18831
                                               18833
                                                          18834
                                                                    18835
                                                                              18836
## Cluster 1 0.2285371 0.2768846 0.3692878 0.4439602 0.5068090 0.5649430 0.5615371
## Cluster 2 0.2656012 0.3599238 0.3712258 0.3698651 0.3201994 0.3234692 0.2760352
## Cluster 3 0.2544227 0.2757021 0.3073106 0.3455220 0.3869291 0.4145986 0.4396057
## Cluster 4 0.5406859 0.6621877 0.6198628 0.5840794 0.6370794 0.4927112 0.5284765
## Cluster 5 0.2535172 0.2891767 0.3746293 0.3833793 0.3700129 0.3495776 0.3294698
##
                 18837
                           18838
                                     18839
                                               18840
                                                          18841
                                                                    18842
                                                                              18843
## Cluster 1 0.5444271 0.5220371 0.5267546 0.4549019 0.4755279 0.4948064 0.5172241
## Cluster 2 0.2720674 0.3261994 0.2840850 0.2769355 0.2977273 0.2995924 0.2880352
## Cluster 3 0.4604894 0.5019972 0.5224922 0.5238794 0.5619887 0.5656922 0.5853262
## Cluster 4 0.4881372 0.5003357 0.4443105 0.4154440 0.4256173 0.4478448 0.4324404
## Cluster 5 0.4023621 0.3343664 0.3548190 0.3057457 0.3135043 0.3446638 0.3563405
                 18844
                           18845
                                     18846
                                               18847
                                                          18848
                                                                    18849
## Cluster 1 0.4804682 0.4367480 0.4480637 0.4310265 0.4398873 0.4560531 0.5540637
## Cluster 2 0.2764047 0.2757097 0.2422610 0.2463988 0.2667449 0.2604340 0.3266364
## Cluster 3 0.5533929 0.5296369 0.5016567 0.5194156 0.5390340 0.5697376 0.6164553
## Cluster 4 0.4223538 0.3545415 0.3557112 0.4232238 0.4105596 0.5130469 0.5364007
## Cluster 5 0.3604871 0.3225086 0.2995172 0.3110216 0.3051121 0.3644569 0.3648879
##
                 18851
                           18852
                                     18853
                                               18854
                                                          18855
                                                                    18856
                                                                              18857
## Cluster 1 0.7610915 0.8096804 0.8086698 0.6952361 0.6918767 0.6599284 0.6331552
## Cluster 2 0.3819120 0.4302111 0.5698915 0.5783959 0.5718827 0.6446276 0.6257390
## Cluster 3 0.6623433 0.6759376 0.6419844 0.6020553 0.5770142 0.5867348 0.5865447
## Cluster 4 0.6147978 0.6429783 0.6437906 0.5753971 0.5150903 0.5267401 0.5082744
## Cluster 5 0.3546509 0.4514612 0.5007586 0.4907069 0.4581293 0.3997026 0.4582284
                           18859
                                     18860
                 18858
                                               18861
                                                          18862
                                                                    18863
## Cluster 1 0.5981141 0.6726074 0.6791446 0.6575743 0.5621578 0.4830040 0.4224019
## Cluster 2 0.5805953 0.6460733 0.7871701 0.7801789 0.6498446 0.5939208 0.4835748
## Cluster 3 0.6371206 0.6811504 0.7249589 0.7080340 0.6723504 0.6294383 0.5326099
## Cluster 4 0.4983682 0.5120217 0.5794910 0.5210253 0.4771516 0.4597473 0.4069747
## Cluster 5 0.4853534 0.5442198 0.6464181 0.6358879 0.6233276 0.6513276 0.6506853
                 18865
                           18866
                                     18867
                                                          18869
                                               18868
                                                                    18870
                                                                              18871
## Cluster 1 0.3117520 0.2600942 0.2100252 0.1842931 0.1813156 0.1695915 0.1634748
## Cluster 2 0.3577683 0.2572111 0.2218358 0.1823431 0.1680528 0.1697273 0.1566979
## Cluster 3 0.4506369 0.3739078 0.3229092 0.2680184 0.2421887 0.2230879 0.2121447
## Cluster 4 0.3447870 0.2555054 0.2312022 0.2235957 0.2250036 0.2058484 0.2240975
## Cluster 5 0.5498879 0.4607371 0.4077888 0.3303793 0.2996509 0.2828578 0.2816724
                           18873
                                                          18876
##
                 18872
                                     18874
                                               18875
                                                                    18877
                                                                              18878
## Cluster 1 0.1643820 0.1575345 0.1668316 0.1705809 0.1787069 0.2062294 0.2187666
## Cluster 2 0.1614194 0.1665836 0.1671672 0.1785572 0.1917889 0.2664780 0.3066745
## Cluster 3 0.2069546 0.2015461 0.2066752 0.2074553 0.2175461 0.2392652 0.2522908
## Cluster 4 0.2120505 0.2079928 0.2501661 0.2663682 0.3282708 0.3559097 0.4957473
## Cluster 5 0.2630905 0.2445388 0.2404698 0.2406724 0.2469784 0.2385216 0.2702888
##
                 18879
                           18880
                                     18881
                                               18882
                                                          18883
                                                                    18884
                                                                              18885
```

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## Cluster 1 0.2873660 0.3815504 0.4570093 0.4995106 0.5140862 0.5402294 0.4909350
## Cluster 2 0.3814545 0.3813460 0.3385718 0.3385572 0.3057478 0.2871525 0.3041730
## Cluster 3 0.2896255 0.3167773 0.3595035 0.4035603 0.4249149 0.4408255 0.4583390
## Cluster 4 0.6198339 0.6589964 0.6880614 0.6159531 0.5454296 0.5014477 0.4503105
## Cluster 5 0.2865991 0.3272328 0.3632845 0.3073793 0.2901034 0.3116207 0.3045603
                 18886
                           18887
                                     18888
                                                         18890
                                                                    18891
##
                                               18889
## Cluster 1 0.5124324 0.5238170 0.4695955 0.4783541 0.5464960 0.5225411 0.4700849
## Cluster 2 0.2841935 0.2890117 0.2652463 0.2601848 0.2560674 0.2554692 0.2962727
## Cluster 3 0.4953858 0.5029532 0.5054511 0.5284979 0.5741475 0.5299816 0.5141929
## Cluster 4 0.4338953 0.3601877 0.4298628 0.4136968 0.4163899 0.4208989 0.4152455
  Cluster 5 0.3237457 0.3607069 0.3674526 0.4062586 0.4021638 0.3916638 0.3504353
                                     18895
                 18893
                           18894
                                               18896
                                                         18897
                                                                    18898
                                                                              18899
## Cluster 1 0.4398939 0.4526194 0.4374032 0.4811114 0.4855093 0.5976273 0.6911645
## Cluster 2 0.2959355 0.2559443 0.2384780 0.2594282 0.2619619 0.2891466 0.3616862
## Cluster 3 0.5235787 0.5323759 0.5558426 0.5630043 0.6011305 0.6536652 0.6530298
## Cluster 4 0.3892527 0.3735018 0.3848195 0.4350433 0.5618953 0.6292419 0.5762635
## Cluster 5 0.3367629 0.3360216 0.3091466 0.3387716 0.3391466 0.3592371 0.3903060
##
                 18900
                           18901
                                     18902
                                               18903
                                                         18904
                                                                    18905
                                                                              18906
## Cluster 1 0.8067467 0.7598899 0.6908210 0.6883992 0.6371751 0.6569735 0.6268912
## Cluster 2 0.4492757 0.5439062 0.5846774 0.6723724 0.6783636 0.7060557 0.6501818
## Cluster 3 0.6507078 0.6343759 0.6437759 0.6361135 0.5967206 0.6132099 0.6511688
## Cluster 4 0.6208700 0.5775848 0.5714477 0.6289242 0.5996859 0.5579170 0.5302274
## Cluster 5 0.4340776 0.4525000 0.5050345 0.5160431 0.4595776 0.4411983 0.5206250
                 18907
                           18908
                                     18909
                                               18910
                                                         18911
                                                                    18912
## Cluster 1 0.6607851 0.6735782 0.6272387 0.5712613 0.4961034 0.4042958 0.3116724
## Cluster 2 0.7138592 0.6745073 0.6707566 0.6024516 0.5748768 0.4395279 0.3354721
## Cluster 3 0.6741163 0.7608426 0.7476383 0.7066681 0.6266213 0.5445404 0.4548582
## Cluster 4 0.5406137 0.5353791 0.5119892 0.4567220 0.3879386 0.3793177 0.3216101
## Cluster 5 0.5661983 0.6053103 0.5965474 0.5752284 0.6348836 0.6157112 0.5276897
##
                 18914
                           18915
                                     18916
                                               18917
                                                         18918
                                                                    18919
                                                                              18920
## Cluster 1 0.2607653 0.2160862 0.1892016 0.1776618 0.1735637 0.1718130 0.1722692
## Cluster 2 0.2701877 0.2193167 0.1989560 0.1648534 0.1694604 0.1564370 0.1505455
## Cluster 3 0.3597489 0.2884695 0.2637660 0.2268979 0.2259007 0.2089248 0.2080780
## Cluster 4 0.2895993 0.2337329 0.2269747 0.2129314 0.2150469 0.2132635 0.2186787
## Cluster 5 0.4808147 0.4493664 0.3531466 0.3104957 0.3024871 0.2781034 0.2374483
                           18922
                                     18923
                                                         18925
                 18921
                                               18924
                                                                    18926
## Cluster 1 0.1650928 0.1647308 0.1726936 0.1851698 0.2006592 0.2264469 0.2835252
## Cluster 2 0.1451730 0.1550528 0.1680704 0.1926510 0.2644194 0.2786745 0.3421525
## Cluster 3 0.1957872 0.2057461 0.2036794 0.2143404 0.2487730 0.2565135 0.2809504
## Cluster 4 0.2059892 0.2458014 0.2559242 0.2973863 0.4053971 0.5321986 0.6259892
## Cluster 5 0.2181897 0.2097328 0.2466509 0.2171121 0.2539440 0.2592284 0.2676983
                 18928
                           18929
                                     18930
                                               18931
                                                         18932
                                                                    18933
                                                                              18934
## Cluster 1 0.3446870 0.4573422 0.4726207 0.5026764 0.5163156 0.5097215 0.5250968
## Cluster 2 0.3590587 0.3638710 0.3137097 0.2838534 0.2940938 0.2468886 0.2493842
## Cluster 3 0.2827149 0.3140383 0.3740738 0.4121475 0.4318142 0.4634355 0.4578057
## Cluster 4 0.7218231 0.5667365 0.5207653 0.4859314 0.4523538 0.4324910 0.4379928
## Cluster 5 0.3439526 0.3573017 0.3279569 0.3159914 0.3172845 0.3399871 0.3323276
                           18936
                                                          18939
##
                 18935
                                     18937
                                               18938
                                                                    18940
                                                                              18941
## Cluster 1 0.5143435 0.4683249 0.4733793 0.4937162 0.4882706 0.4997281 0.4619098
## Cluster 2 0.2896364 0.2514487 0.2578446 0.2559765 0.2901056 0.2884164 0.3017566
## Cluster 3 0.4996922 0.4891376 0.5293191 0.5531177 0.5579191 0.5198156 0.5424511
## Cluster 4 0.4288448 0.3912671 0.4506137 0.3869458 0.4224693 0.4517076 0.3999422
## Cluster 5 0.3212716 0.3249828 0.3796207 0.3807716 0.4192155 0.3162845 0.3142457
##
                 18942
                           18943
                                     18944
                                               18945
                                                         18946
                                                                    18947
```

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## Cluster 1 0.4383607 0.4480531 0.4418355 0.4527573 0.5782480 0.6849615 0.8061790
## Cluster 2 0.2541642 0.2499619 0.2789971 0.2836334 0.2829531 0.3883021 0.4531613
## Cluster 3 0.5413674 0.5593730 0.5630284 0.6435305 0.6101135 0.6383121 0.6713688
## Cluster 4 0.4038809 0.4539206 0.4289495 0.5028051 0.5561300 0.6194982 0.6196390
## Cluster 5 0.3037543 0.3393147 0.3032672 0.3146940 0.3542716 0.4031552 0.4121034
                 18949
                           18950
                                     18951
                                                         18953
##
                                               18952
                                                                    18954
## Cluster 1 0.7740438 0.6890902 0.6705531 0.6611684 0.6289655 0.6122003 0.7235915
## Cluster 2 0.5387683 0.6094839 0.6658944 0.6726686 0.6345015 0.6248123 0.7018651
## Cluster 3 0.6613291 0.6144482 0.6156525 0.6230213 0.6184993 0.6236440 0.7024780
## Cluster 4 0.6004332 0.5304585 0.5408195 0.5746029 0.5515523 0.5345704 0.5342816
  Cluster 5 0.4432026 0.4328750 0.5035517 0.4887500 0.5109914 0.4706466 0.6051940
                           18957
                 18956
                                     18958
                                               18959
                                                         18960
                                                                    18961
                                                                              18962
## Cluster 1 0.7397095 0.6840796 0.5621631 0.4635981 0.3729695 0.3007719 0.2396658
## Cluster 2 0.8040147 0.7799120 0.7110293 0.6174692 0.4795249 0.3795132 0.2857126
## Cluster 3 0.7365830 0.7265319 0.6925688 0.6450227 0.5884397 0.4842227 0.3987220
## Cluster 4 0.5364440 0.4980578 0.4408195 0.4154043 0.3849495 0.3052635 0.2709495
## Cluster 5 0.6274095 0.6037155 0.5902026 0.6608793 0.6629914 0.5547069 0.4473362
##
                 18963
                           18964
                                     18965
                                               18966
                                                         18967
                                                                    18968
                                                                              18969
## Cluster 1 0.2187533 0.1874907 0.1759536 0.1732573 0.1707003 0.1670411 0.1613714
## Cluster 2 0.2326774 0.1847742 0.1629619 0.1696481 0.1589238 0.1439941 0.1460616
## Cluster 3 0.3400667 0.2848936 0.2532369 0.2336113 0.2231475 0.2156908 0.2107149
## Cluster 4 0.2336065 0.2178773 0.2096462 0.2045415 0.2098303 0.2062202 0.2105776
## Cluster 5 0.3780603 0.3335603 0.2830259 0.2706293 0.2615129 0.2609181 0.2371422
                 18970
                           18971
                                     18972
                                               18973
                                                          18974
                                                                    18975
## Cluster 1 0.1640584 0.1730729 0.1849204 0.1943090 0.2031326 0.2785690 0.3732507
## Cluster 2 0.1439531 0.1668739 0.2001261 0.2494457 0.2913109 0.3177654 0.3487478
## Cluster 3 0.2113574 0.2153957 0.2248624 0.2432695 0.2620369 0.2821986 0.2833773
## Cluster 4 0.2215018 0.2485921 0.3107220 0.3974946 0.4295415 0.5973646 0.6971227
## Cluster 5 0.2129052 0.2379655 0.2322112 0.2269655 0.2459181 0.2662931 0.3295905
##
                 18977
                           18978
                                     18979
                                               18980
                                                         18981
                                                                    18982
                                                                              18983
## Cluster 1 0.4443568 0.4753700 0.5066393 0.4999509 0.5235637 0.4910822 0.4997347
## Cluster 2 0.3472111 0.3363959 0.2739472 0.3511349 0.3301584 0.3357097 0.3078152
## Cluster 3 0.3348199 0.4041589 0.4034284 0.4529957 0.4948199 0.5336794 0.5468979
## Cluster 4 0.6529386 0.5762996 0.5032238 0.4624693 0.4538231 0.4089061 0.4140758
## Cluster 5 0.3447845 0.3767974 0.3358233 0.3337198 0.3262457 0.3400905 0.3184095
                                                         18988
                 18984
                                     18986
                           18985
                                               18987
                                                                    18989
## Cluster 1 0.4777958 0.4788422 0.5104682 0.5416592 0.4936260 0.4531353 0.4105544
## Cluster 2 0.2968035 0.3090000 0.2733695 0.2938856 0.3079912 0.2858240 0.2613079
## Cluster 3 0.5410652 0.4974014 0.5215418 0.5313730 0.5470922 0.5470014 0.5495135
## Cluster 4 0.4501336 0.4256137 0.3816029 0.3997906 0.3971986 0.3791444 0.3778736
## Cluster 5 0.3125517 0.3504569 0.3624698 0.3632543 0.3591293 0.3720345 0.3536509
                 18991
                           18992
                                     18993
                                               18994
                                                         18995
                                                                    18996
                                                                              18997
## Cluster 1 0.4415610 0.4307533 0.4477785 0.5448647 0.6816141 0.7921764 0.8157599
## Cluster 2 0.2297507 0.2850469 0.3105484 0.3482903 0.3632053 0.4413167 0.5544663
## Cluster 3 0.5770170 0.5574695 0.5988667 0.6322525 0.6596766 0.6584965 0.7108312
## Cluster 4 0.4500000 0.4576137 0.5165776 0.6350722 0.5894657 0.6064332 0.6030325
## Cluster 5 0.3537328 0.3774914 0.3731164 0.3451336 0.3496207 0.4040733 0.4706853
                 18998
                           18999
                                     19000
                                               19001
                                                                    19003
##
                                                          19002
                                                                              19004
## Cluster 1 0.7271525 0.6771844 0.6007573 0.6407759 0.6093090 0.6707215 0.6530212
## Cluster 2 0.5710499 0.5561085 0.5959296 0.6342933 0.6166129 0.6370293 0.7333695
## Cluster 3 0.7011305 0.6455574 0.6195121 0.6350184 0.6483830 0.7374383 0.7259759
## Cluster 4 0.5816173 0.6146245 0.5815090 0.4862635 0.5030758 0.5140686 0.5430939
## Cluster 5 0.4936940 0.4913319 0.4362457 0.4356466 0.4488060 0.5319224 0.5844267
##
                 19005
                           19006
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                                               19008
                                                         19009
                                                                    19010
```

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## Cluster 1 0.6476366 0.5723554 0.4975531 0.4288886 0.3602109 0.2868806 0.2384390
## Cluster 2 0.7013548 0.6639003 0.5783959 0.5008328 0.4030880 0.3111554 0.2554604
## Cluster 3 0.7170993 0.6803007 0.6372809 0.5764567 0.5070979 0.4194823 0.3627319
## Cluster 4 0.5172022 0.4594946 0.3956823 0.3587401 0.3334982 0.2979603 0.2706715
## Cluster 5 0.5883578 0.5677328 0.6143060 0.6205733 0.5689871 0.4889914 0.4203017
                 19012
                           19013
                                     19014
                                                          19016
##
                                               19015
                                                                    19017
## Cluster 1 0.2074775 0.1882016 0.1806472 0.1667560 0.1622679 0.1624244 0.1621432
## Cluster 2 0.2047067 0.1737566 0.1783138 0.1605630 0.1522727 0.1594663 0.1521554
## Cluster 3 0.3214184 0.2820525 0.2680936 0.2446950 0.2325333 0.2197688 0.2145745
## Cluster 4 0.2518881 0.2280830 0.2135451 0.2057581 0.2188628 0.2365271 0.2507617
  Cluster 5 0.3795560 0.3309483 0.3099698 0.3043362 0.2508190 0.2668534 0.2293190
                                                          19023
                                     19021
                 19019
                           19020
                                               19022
                                                                    19024
                                                                              19025
## Cluster 1 0.1672281 0.1759469 0.1821154 0.1884151 0.2127639 0.2571340 0.3522122
## Cluster 2 0.1739267 0.1840264 0.2038680 0.2352082 0.2242493 0.2316422 0.2659531
## Cluster 3 0.2219291 0.2381929 0.2477957 0.2455660 0.2479617 0.2722638 0.2936369
## Cluster 4 0.2621155 0.2860542 0.3404982 0.3782744 0.4904729 0.5256029 0.5757870
## Cluster 5 0.2392716 0.2414914 0.2394871 0.2416121 0.2496466 0.2765603 0.2931509
##
                 19026
                           19027
                                     19028
                                               19029
                                                          19030
                                                                    19031
                                                                              19032
## Cluster 1 0.4522321 0.5330557 0.6399987 0.6212016 0.6779204 0.6087639 0.5587905
## Cluster 2 0.3297331 0.3745748 0.4019648 0.3734223 0.4713812 0.4136100 0.4374340
## Cluster 3 0.3436482 0.3961319 0.4339787 0.5169277 0.5738823 0.6036241 0.6593546
## Cluster 4 0.5635884 0.5889278 0.5900903 0.5621047 0.4986065 0.4736643 0.5377004
## Cluster 5 0.3042069 0.3753621 0.3612414 0.3584569 0.4200216 0.4135776 0.3708879
                 19033
                           19034
                                     19035
                                               19036
                                                          19037
                                                                    19038
## Cluster 1 0.5884045 0.5995053 0.5735584 0.5821074 0.5210703 0.5370451 0.5096141
## Cluster 2 0.4592757 0.4558886 0.4498768 0.4191525 0.4110176 0.4150821 0.3995777
## Cluster 3 0.6666979 0.6670326 0.6556213 0.6562000 0.6075149 0.6191220 0.5898284
## Cluster 4 0.5831552 0.5039856 0.4697256 0.4422996 0.3962166 0.4675162 0.4758339
## Cluster 5 0.3917284 0.4096078 0.4161293 0.4015129 0.3886681 0.3544741 0.3841078
##
                 19040
                           19041
                                     19042
                                               19043
                                                          19044
                                                                    19045
                                                                              19046
## Cluster 1 0.4786233 0.4980942 0.5820491 0.6470371 0.7279111 0.8090398 0.7056910
## Cluster 2 0.4000235 0.4134780 0.3990821 0.4605982 0.5218152 0.6234897 0.6393050
## Cluster 3 0.6012780 0.6251404 0.6805929 0.6688227 0.6780638 0.7115759 0.7251489
## Cluster 4 0.5514729 0.5491155 0.5687184 0.5873285 0.5526931 0.6062455 0.5615162
  Cluster 5 0.3841164 0.3965043 0.3757155 0.3687026 0.4020991 0.4592414 0.4350259
                           19048
                                     19049
                                                          19051
                 19047
                                               19050
                                                                    19052
                                                                              19053
## Cluster 1 0.6396883 0.5944350 0.5748793 0.5468886 0.5776313 0.6010093 0.5637467
## Cluster 2 0.6639824 0.5996041 0.5786657 0.5540411 0.6162082 0.6465191 0.6227449
## Cluster 3 0.7148993 0.6512057 0.6605163 0.6501716 0.7165177 0.7230794 0.7021234
## Cluster 4 0.5663032 0.5350253 0.4875162 0.4867798 0.5168773 0.5295415 0.4887040
## Cluster 5 0.4783879 0.4889957 0.4873793 0.4877672 0.5302155 0.5608664 0.5746509
                 19054
                           19055
                                     19056
                                               19057
                                                          19058
                                                                    19059
                                                                              19060
## Cluster 1 0.4971751 0.4424005 0.4030239 0.3228329 0.2836857 0.2403422 0.2192228
## Cluster 2 0.6074633 0.5057507 0.4302903 0.3810117 0.3068270 0.2619531 0.2346745
## Cluster 3 0.6709730 0.6208454 0.5376482 0.4958766 0.4311872 0.3552738 0.3135106
## Cluster 4 0.4788773 0.3771480 0.3572635 0.3070903 0.2727762 0.2611841 0.2597617
## Cluster 5 0.5702198 0.5723362 0.5499483 0.4926422 0.4530991 0.4388879 0.3624224
                           19062
                                     19063
                                                          19065
##
                 19061
                                               19064
                                                                    19066
                                                                              19067
## Cluster 1 0.1882467 0.1750239 0.1687095 0.1672891 0.1592772 0.1579947 0.1651605
## Cluster 2 0.2168534 0.2055425 0.1955601 0.1760909 0.1638006 0.1655044 0.1720381
## Cluster 3 0.2746936 0.2617305 0.2521546 0.2390099 0.2225716 0.2165589 0.2179390
## Cluster 4 0.2352527 0.2148628 0.2489314 0.2362780 0.2194043 0.2437473 0.2681661
## Cluster 5 0.3064052 0.3052672 0.2994871 0.2730172 0.2589741 0.2441509 0.2521552
##
                 19068
                           19069
                                     19070
                                               19071
                                                          19072
                                                                    19073
                                                                              19074
```

```
## Cluster 1 0.1670637 0.1812202 0.1830225 0.2279231 0.2613395 0.2980875 0.3785584
## Cluster 2 0.1920792 0.1913343 0.2209003 0.1948651 0.2480381 0.2776129 0.2990176
## Cluster 3 0.2286355 0.2298014 0.2279092 0.2259929 0.2479404 0.2872000 0.3110482
## Cluster 4 0.3029856 0.3393285 0.3865921 0.4335596 0.4679819 0.5080578 0.5288051
## Cluster 5 0.2279009 0.2277069 0.2543621 0.2577543 0.2862629 0.2604828 0.2950086
                 19075
                           19076
                                     19077
                                               19078
                                                         19079
                                                                    19080
##
## Cluster 1 0.4847626 0.5638276 0.6672069 0.7072865 0.6921552 0.6947334 0.6611790
## Cluster 2 0.3528358 0.3663842 0.4464985 0.4696686 0.4977449 0.4289355 0.4424399
## Cluster 3 0.3717830 0.4702085 0.5059844 0.5906652 0.6181631 0.6715433 0.7209574
## Cluster 4 0.6222924 0.5990722 0.5438628 0.5893177 0.5501733 0.5315848 0.5763791
  Cluster 5 0.3494095 0.3829612 0.3710603 0.4332845 0.4755733 0.4430474 0.4203879
                           19083
                                     19084
                 19082
                                               19085
                                                         19086
                                                                    19087
                                                                              19088
## Cluster 1 0.6968674 0.6178634 0.5896034 0.5339536 0.5218687 0.4955477 0.4836910
## Cluster 2 0.5015513 0.4660645 0.4380674 0.4125894 0.4063050 0.3547097 0.3740176
## Cluster 3 0.7425475 0.7739730 0.7315390 0.6494113 0.6012567 0.5775645 0.5805248
## Cluster 4 0.5690794 0.5463755 0.5059819 0.5071191 0.4900722 0.5796606 0.5269964
## Cluster 5 0.4943319 0.4295388 0.4147974 0.4018233 0.3944095 0.3776336 0.4223836
##
                 19089
                           19090
                                     19091
                                               19092
                                                         19093
                                                                    19094
                                                                              19095
## Cluster 1 0.5013660 0.5023236 0.5518859 0.5981711 0.6041088 0.5669456 0.5958753
## Cluster 2 0.4037361 0.4078798 0.4482111 0.5026452 0.4834311 0.5221906 0.5218563
## Cluster 3 0.5943206 0.5536908 0.5534170 0.5550227 0.5937816 0.5847504 0.5803007
## Cluster 4 0.5423321 0.4881625 0.5382347 0.5597942 0.5279964 0.4877690 0.5136570
## Cluster 5 0.3465690 0.3975043 0.3566466 0.4034741 0.4361078 0.4426638 0.4773750
                 19096
                           19097
                                     19098
                                               19099
                                                          19100
                                                                    19101
## Cluster 1 0.5582586 0.5561167 0.5568979 0.6188077 0.6449257 0.6044549 0.5391141
## Cluster 2 0.5392346 0.5747566 0.5814633 0.6876891 0.7356891 0.6918240 0.6310850
## Cluster 3 0.5741617 0.5638525 0.6047986 0.6856128 0.7168879 0.7130255 0.6747248
## Cluster 4 0.5155235 0.5136209 0.4890505 0.5133177 0.5400253 0.5357906 0.4720000
## Cluster 5 0.4087457 0.4347284 0.4776509 0.5790431 0.6405517 0.6244310 0.5933147
##
                 19103
                           19104
                                     19105
                                               19106
                                                         19107
                                                                    19108
                                                                              19109
## Cluster 1 0.4652162 0.3951698 0.3191883 0.2668050 0.2238727 0.1982613 0.1822865
## Cluster 2 0.5173578 0.4052639 0.3514047 0.2751408 0.2101114 0.1848592 0.1759179
## Cluster 3 0.5921333 0.5286057 0.4608851 0.3796624 0.3272780 0.2852170 0.2586837
## Cluster 4 0.4568231 0.3716029 0.3045957 0.2540830 0.2384224 0.2287690 0.2239639
## Cluster 5 0.6027716 0.5888405 0.5655259 0.4742586 0.3895862 0.3402629 0.3141207
                                     19112
                                               19113
                                                         19114
                 19110
                           19111
                                                                    19115
## Cluster 1 0.1766525 0.1702294 0.1609271 0.1617042 0.1638130 0.1805477 0.1849111
## Cluster 2 0.1705073 0.1570411 0.1497918 0.1540557 0.1465103 0.1604340 0.1980352
## Cluster 3 0.2384411 0.2248270 0.2122270 0.2084085 0.2192596 0.2180199 0.2160270
## Cluster 4 0.2054296 0.2185993 0.2046318 0.2225523 0.2467004 0.2775379 0.3068736
## Cluster 5 0.2892371 0.2692931 0.2547284 0.2470948 0.2305474 0.2307716 0.2304224
                           19118
                                     19119
                                               19120
                                                         19121
                 19117
                                                                    19122
                                                                              19123
## Cluster 1 0.1941406 0.2232454 0.2841220 0.3549337 0.4273462 0.4615955 0.4920862
## Cluster 2 0.2477009 0.2795044 0.3413959 0.3549677 0.3497830 0.3199238 0.3548328
## Cluster 3 0.2468369 0.2633319 0.2696170 0.2805433 0.3112511 0.3704071 0.4097943
## Cluster 4 0.3766354 0.5145271 0.6050939 0.6750975 0.6144404 0.5345162 0.4915596
## Cluster 5 0.2323836 0.2613491 0.3037974 0.3073750 0.3164440 0.3842371 0.3609267
##
                 19124
                           19125
                                     19126
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                                                          19128
                                                                    19129
                                                                              19130
## Cluster 1 0.5024350 0.5556512 0.4980186 0.5076817 0.4947997 0.5268886 0.5807825
## Cluster 2 0.3391730 0.3203959 0.2889677 0.2934663 0.3158358 0.2785689 0.2915425
## Cluster 3 0.4429716 0.4514667 0.4885163 0.5056652 0.5158979 0.5968199 0.6030582
## Cluster 4 0.4644007 0.4341011 0.4113249 0.4469278 0.4571949 0.4783213 0.4856895
## Cluster 5 0.3190345 0.3225216 0.3547155 0.3895259 0.3760474 0.3716078 0.3931379
##
                 19131
                           19132
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                                               19134
                                                         19135
                                                                    19136
```

```
## Cluster 1 0.5682891 0.5435756 0.4967719 0.4617294 0.4878143 0.4922772 0.5348568
## Cluster 2 0.3270587 0.3257771 0.3233548 0.3299677 0.3051026 0.3045982 0.3746393
## Cluster 3 0.6233929 0.6134482 0.5890454 0.5741972 0.5710426 0.5898638 0.6530440
## Cluster 4 0.4888556 0.4204079 0.4345776 0.4494440 0.4847726 0.5082996 0.5266390
## Cluster 5 0.3934138 0.3812543 0.3490948 0.3797328 0.4100172 0.4560259 0.3938362
                 19138
                           19139
                                     19140
                                                         19142
##
                                               19141
                                                                    19143
## Cluster 1 0.6607480 0.7886326 0.8774695 0.8172003 0.7700570 0.7254151 0.7107149
## Cluster 2 0.4126716 0.4680587 0.5480029 0.6138123 0.7164692 0.7623079 0.7717419
## Cluster 3 0.6689404 0.7177887 0.7075872 0.7151461 0.6912922 0.7092936 0.7094071
## Cluster 4 0.5752058 0.6948917 0.7332671 0.6311841 0.5982347 0.6573502 0.6311372
  Cluster 5 0.4103405 0.3918534 0.4369957 0.4581164 0.5091595 0.5310862 0.5281509
                                     19147
                                               19148
                 19145
                           19146
                                                         19149
                                                                    19150
## Cluster 1 0.7186830 0.7269867 0.7271061 0.6907268 0.6547745 0.5650451 0.4943859
## Cluster 2 0.7648974 0.7562786 0.8206217 0.7761085 0.7300381 0.6537038 0.5468622
## Cluster 3 0.7249688 0.7497972 0.7431376 0.7591887 0.7932738 0.6971135 0.6770553
## Cluster 4 0.6266137 0.5922166 0.6360830 0.5925921 0.5944368 0.4917365 0.4080144
## Cluster 5 0.5438319 0.5732759 0.6456897 0.6588966 0.6624612 0.6294224 0.6677629
##
                 19152
                           19153
                                     19154
                                               19155
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                                                                    19157
                                                                              19158
## Cluster 1 0.3917003 0.3074483 0.2533024 0.2112759 0.1904867 0.1714841 0.1699881
## Cluster 2 0.4315073 0.3274399 0.2359062 0.2122141 0.1910733 0.1753900 0.1596804
## Cluster 3 0.5830539 0.4611702 0.3712979 0.3066511 0.2726199 0.2530794 0.2298156
## Cluster 4 0.3464224 0.2912599 0.2504296 0.2377870 0.2196715 0.2085957 0.1976101
## Cluster 5 0.6451897 0.5275216 0.4315043 0.3898922 0.3296121 0.2870690 0.2895690
                 19159
                           19160
                                     19161
                                               19162
                                                          19163
                                                                    19164
## Cluster 1 0.1619708 0.1600199 0.1608342 0.1647241 0.1698117 0.1735159 0.1874695
## Cluster 2 0.1558299 0.1433343 0.1435015 0.1462522 0.1638710 0.1948504 0.2484575
## Cluster 3 0.2107333 0.2034865 0.2005986 0.2078610 0.2106993 0.2283560 0.2536922
## Cluster 4 0.1948195 0.2130181 0.2139061 0.2336643 0.2401733 0.2958448 0.3867798
## Cluster 5 0.2599784 0.2419483 0.2444871 0.2299698 0.2466810 0.2329052 0.2576509
##
                 19166
                           19167
                                     19168
                                               19169
                                                         19170
                                                                    19171
                                                                              19172
## Cluster 1 0.2211804 0.2902334 0.3738183 0.4613156 0.4896048 0.5301645 0.5379231
## Cluster 2 0.2708240 0.3488006 0.3969179 0.3498211 0.3193519 0.3235015 0.3402170
## Cluster 3 0.2681915 0.3002652 0.3143418 0.3471745 0.3721816 0.3915149 0.4406369
## Cluster 4 0.5935596 0.7045307 0.6634982 0.6670144 0.5808159 0.5091408 0.4145126
## Cluster 5 0.2692586 0.2721595 0.3314914 0.3481379 0.3298534 0.3630733 0.3220862
                 19173
                           19174
                                     19175
                                               19176
                                                         19177
                                                                    19178
## Cluster 1 0.5743037 0.5305928 0.4846313 0.4391127 0.4605623 0.4876830 0.5189310
## Cluster 2 0.2904956 0.2811466 0.2596628 0.2922111 0.2734194 0.2618651 0.2927625
## Cluster 3 0.4926610 0.5050624 0.5488652 0.5791830 0.5788113 0.5850567 0.5887206
## Cluster 4 0.4042455 0.3755487 0.3838881 0.3996390 0.4190072 0.4647653 0.4379964
## Cluster 5 0.3404353 0.3637974 0.3714741 0.3959009 0.4300905 0.3957284 0.3808922
                 19180
                           19181
                                     19182
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                                                         19184
                                                                    19185
                                                                              19186
## Cluster 1 0.4467785 0.4242666 0.4283806 0.4589735 0.4852228 0.4997759 0.6176684
## Cluster 2 0.2764311 0.2928827 0.2843900 0.2707067 0.3014340 0.2919179 0.3378504
## Cluster 3 0.5806766 0.5406794 0.5350454 0.5503106 0.5721645 0.6325546 0.6723376
## Cluster 4 0.4100217 0.4228989 0.4546282 0.4360036 0.4935126 0.5813069 0.6557653
## Cluster 5 0.3816552 0.3586724 0.3356078 0.3703966 0.3727586 0.3484095 0.3434353
##
                 19187
                           19188
                                     19189
                                               19190
                                                         19191
                                                                    19192
                                                                              19193
## Cluster 1 0.7444456 0.8406525 0.8224085 0.7454072 0.6844443 0.6662467 0.6450464
## Cluster 2 0.3904516 0.4437478 0.5731994 0.6153578 0.7696979 0.6810557 0.6750059
## Cluster 3 0.6671376 0.7122270 0.6759163 0.6920355 0.6942454 0.6337957 0.6710284
## Cluster 4 0.6601408 0.6685054 0.5758014 0.5527545 0.5743827 0.5283357 0.5041408
## Cluster 5 0.3942155 0.4428233 0.4737974 0.4725259 0.4982931 0.4399698 0.5113190
##
                 19194
                           19195
                                     19196
                                               19197
                                                         19198
                                                                    19199
```

```
## Cluster 1 0.6413873 0.7157308 0.6986777 0.6524125 0.5828966 0.5077958 0.4160637
## Cluster 2 0.6944956 0.7740440 0.7995572 0.7492815 0.6571320 0.5535748 0.4421466
## Cluster 3 0.6944738 0.7921816 0.8021759 0.7802383 0.7127645 0.6414908 0.5769277
## Cluster 4 0.5499711 0.5809314 0.5483971 0.4860000 0.4896498 0.4561805 0.3643394
## Cluster 5 0.5102328 0.5883664 0.6537069 0.6671638 0.6655603 0.6759224 0.6448362
                 19201
                           19202
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                                               19204
                                                         19205
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##
## Cluster 1 0.3020623 0.2424098 0.2071817 0.1804324 0.1796260 0.1722692 0.1609841
## Cluster 2 0.3494633 0.2532434 0.2091437 0.1814340 0.1707155 0.1704194 0.1624282
## Cluster 3 0.4655858 0.3877064 0.3159433 0.2845674 0.2427901 0.2270667 0.2204255
## Cluster 4 0.2960830 0.2696679 0.2452635 0.2250072 0.2147870 0.2038339 0.2079025
  Cluster 5 0.5607802 0.4595086 0.3604784 0.3109871 0.2937371 0.2838793 0.2768448
                           19209
                                     19210
                                                         19212
                 19208
                                               19211
                                                                    19213
                                                                              19214
## Cluster 1 0.1583859 0.1559721 0.1703210 0.1734629 0.1957334 0.1891114 0.2311247
## Cluster 2 0.1520147 0.1448240 0.1511965 0.1671144 0.1914751 0.2505044 0.2795543
## Cluster 3 0.2094284 0.2109348 0.2118227 0.2161348 0.2254553 0.2648496 0.2839390
## Cluster 4 0.2136209 0.2183538 0.2506426 0.2503105 0.2938051 0.3499639 0.5506354
## Cluster 5 0.2656724 0.2304957 0.2262845 0.2378621 0.2426810 0.2264698 0.2550216
##
                 19215
                           19216
                                     19217
                                               19218
                                                         19219
                                                                    19220
                                                                              19221
## Cluster 1 0.2818117 0.3807891 0.4641472 0.4973806 0.5649735 0.5685093 0.5507308
## Cluster 2 0.3841173 0.4122199 0.3795484 0.4095161 0.3115484 0.2981877 0.2862815
## Cluster 3 0.3050837 0.3325702 0.3586468 0.3741433 0.4431291 0.4510128 0.4681730
## Cluster 4 0.6186426 0.6963899 0.6095487 0.5585776 0.5613827 0.4551516 0.3975487
## Cluster 5 0.2645647 0.3598276 0.4039612 0.3295474 0.3234310 0.3489655 0.3868793
                 19222
                           19223
                                     19224
                                               19225
                                                          19226
                                                                    19227
## Cluster 1 0.4966698 0.4614111 0.4484231 0.4998687 0.5338674 0.4968820 0.4658143
## Cluster 2 0.2939971 0.2615601 0.2787830 0.2795601 0.2695718 0.2690674 0.2870381
## Cluster 3 0.4983007 0.5016525 0.5076610 0.5473716 0.5645504 0.5737021 0.5782965
## Cluster 4 0.4524188 0.4047112 0.4335126 0.3924116 0.4411408 0.4639061 0.4182924
## Cluster 5 0.3425733 0.3734914 0.4062284 0.4116250 0.3813103 0.3920345 0.3725388
                 19229
                           19230
                                     19231
                                               19232
                                                         19233
                                                                    19234
                                                                              19235
## Cluster 1 0.4480066 0.4461950 0.4733050 0.4638634 0.5159881 0.6232891 0.7575464
## Cluster 2 0.2964282 0.2899062 0.2639619 0.2703343 0.2859208 0.3568592 0.4466276
## Cluster 3 0.5773489 0.5608085 0.5631972 0.5677220 0.6127149 0.6418638 0.6787773
## Cluster 4 0.4598520 0.4720830 0.4574079 0.4804946 0.5433899 0.5911444 0.6318809
## Cluster 5 0.4033491 0.3393190 0.3814612 0.3446422 0.3514138 0.3655129 0.3995043
                 19236
                           19237
                                     19238
                                               19239
                                                         19240
                                                                    19241
                                                                              19242
## Cluster 1 0.8082772 0.8256777 0.7729536 0.7325345 0.6664668 0.6587467 0.6703820
## Cluster 2 0.4822111 0.5964135 0.5403343 0.6793490 0.6837595 0.7780059 0.7329736
## Cluster 3 0.6788610 0.6474326 0.6662837 0.6907759 0.6440383 0.6219106 0.6839390
## Cluster 4 0.6850830 0.6167545 0.5776065 0.5553285 0.5733791 0.5232022 0.5143827
## Cluster 5 0.4283190 0.5262845 0.5485474 0.4910991 0.4784741 0.4773448 0.5269741
                 19243
                           19244
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                                                         19247
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                                                                              19249
## Cluster 1 0.7265172 0.6965769 0.6352202 0.5675345 0.4972493 0.4177997 0.3122772
## Cluster 2 0.7143255 0.7643636 0.7288651 0.6561290 0.6127947 0.5062581 0.3672933
## Cluster 3 0.7646028 0.7906652 0.7650993 0.6777078 0.6528326 0.5776596 0.4928652
## Cluster 4 0.5660036 0.5249278 0.4896787 0.4384116 0.4179097 0.3432780 0.2941119
## Cluster 5 0.6294569 0.7313319 0.6828017 0.7240690 0.6886509 0.6345948 0.5695603
                 19250
                           19251
                                                          19254
##
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                                               19253
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                                                                              19256
## Cluster 1 0.2374271 0.2265716 0.2020729 0.1797971 0.1753183 0.1733820 0.1682599
## Cluster 2 0.2667595 0.2280029 0.1925015 0.1636979 0.1583548 0.1493138 0.1515337
## Cluster 3 0.4102113 0.3465801 0.2902936 0.2488085 0.2255943 0.2186823 0.2154894
## Cluster 4 0.2672491 0.2416245 0.2325812 0.2286318 0.2117581 0.2253394 0.2118448
## Cluster 5 0.4818147 0.4329095 0.3656681 0.3147888 0.2801552 0.2576983 0.2571207
##
                 19257
                           19258
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                                               19260
                                                          19261
                                                                    19262
```

```
## Cluster 1 0.1631300 0.1698064 0.1722798 0.1775106 0.1845995 0.2279032 0.3075862
## Cluster 2 0.1608299 0.1543021 0.1605748 0.1980029 0.2484487 0.2702786 0.3443021
## Cluster 3 0.2098028 0.2165972 0.2279163 0.2226553 0.2649716 0.2807674 0.2916567
## Cluster 4 0.2228520 0.2491191 0.2605957 0.3137148 0.3838484 0.5007256 0.6968592
## Cluster 5 0.2365086 0.2277543 0.2419655 0.2405819 0.2411983 0.2698405 0.3181164
                 19264
                           19265
                                     19266
                                                         19268
                                                                    19269
##
                                               19267
## Cluster 1 0.3571074 0.4745292 0.4968156 0.5352003 0.5314456 0.5536194 0.5223740
## Cluster 2 0.3960440 0.3722023 0.3549208 0.3392581 0.3184457 0.2725543 0.2969443
## Cluster 3 0.2957135 0.3270014 0.3922170 0.4268908 0.4549050 0.5014865 0.5274482
## Cluster 4 0.7260614 0.7039819 0.5025018 0.5057184 0.4569639 0.3887365 0.4119819
  Cluster 5 0.3977414 0.3301293 0.3372414 0.3649914 0.3954655 0.3646466 0.3585216
                                                         19275
                           19272
                                     19273
                 19271
                                               19274
                                                                    19276
## Cluster 1 0.4967838 0.4593037 0.4922971 0.5015968 0.5269005 0.5071233 0.5363979
## Cluster 2 0.2699413 0.2996540 0.2883167 0.2755015 0.2898065 0.2775689 0.3062903
## Cluster 3 0.5050369 0.5079518 0.5368709 0.5092326 0.5532638 0.5276553 0.5367163
## Cluster 4 0.4615018 0.3862094 0.5119242 0.4679819 0.3936498 0.3817762 0.4330614
## Cluster 5 0.3331034 0.3639483 0.4004052 0.4300474 0.4025819 0.4103578 0.3458750
##
                 19278
                           19279
                                     19280
                                               19281
                                                         19282
                                                                    19283
                                                                              19284
## Cluster 1 0.5050159 0.4884881 0.4877520 0.5266260 0.6398435 0.7824814 0.8560385
## Cluster 2 0.2726246 0.2754018 0.2980997 0.3174194 0.3691466 0.4065924 0.5277654
## Cluster 3 0.5329830 0.5502525 0.5623121 0.6219177 0.6727901 0.6856496 0.7293546
## Cluster 4 0.4693646 0.4874765 0.4717365 0.5380181 0.5979350 0.6000830 0.7050325
## Cluster 5 0.3434138 0.3404741 0.3704957 0.3714310 0.3407414 0.3946078 0.4301940
                 19285
                           19286
                                     19287
                                               19288
                                                          19289
                                                                    19290
## Cluster 1 0.8460796 0.7244523 0.7590186 0.7481048 0.6830663 0.7010544 0.7546074
## Cluster 2 0.6033079 0.6615484 0.7228915 0.8233460 0.7958270 0.8009355 0.8350997
## Cluster 3 0.7347163 0.6715021 0.6867872 0.6641121 0.6500894 0.6861262 0.7604652
## Cluster 4 0.6756354 0.5947906 0.6553321 0.6672924 0.6246282 0.5906101 0.5979783
## Cluster 5 0.5195862 0.5233578 0.5119052 0.4933966 0.5333233 0.5906379 0.6677284
##
                 19292
                           19293
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                                               19295
                                                         19296
                                                                    19297
                                                                              19298
## Cluster 1 0.7197984 0.6666989 0.5796154 0.4738952 0.4005703 0.3301472 0.2628727
## Cluster 2 0.8418328 0.7966628 0.7073548 0.5770616 0.4685572 0.3699589 0.2884516
## Cluster 3 0.7627319 0.7230837 0.6758057 0.6384610 0.5434709 0.4517177 0.3830113
## Cluster 4 0.5878700 0.4959639 0.4970578 0.4332310 0.3620830 0.3217040 0.2951047
## Cluster 5 0.6837241 0.7362500 0.6353534 0.6620259 0.6528707 0.5539828 0.4888534
                                               19302
                 19299
                           19300
                                     19301
                                                         19303
                                                                    19304
                                                                              19305
## Cluster 1 0.2191313 0.1876273 0.1838515 0.1742188 0.1717162 0.1700119 0.1739934
## Cluster 2 0.2325337 0.1992023 0.1719472 0.1713196 0.1605484 0.1560235 0.1448680
## Cluster 3 0.3323574 0.2916411 0.2554525 0.2393149 0.2235688 0.2255816 0.2172071
## Cluster 4 0.2330866 0.2213141 0.2070469 0.2027834 0.2126318 0.2069675 0.2303466
## Cluster 5 0.4366250 0.3532931 0.3586164 0.2977759 0.2904784 0.2755733 0.2522759
                 19306
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                                               19309
                                                         19310
                                                                    19311
                                                                              19312
## Cluster 1 0.1769244 0.1748568 0.1850305 0.1981300 0.2225212 0.3145265 0.3677334
## Cluster 2 0.1549238 0.1687713 0.2150616 0.2501760 0.2954956 0.3650938 0.3687097
## Cluster 3 0.2112511 0.2153461 0.2266780 0.2596014 0.2847206 0.3045262 0.3086340
## Cluster 4 0.2675343 0.2792058 0.2993935 0.3693032 0.5258664 0.6463357 0.6292130
## Cluster 5 0.2492888 0.2411595 0.2427371 0.2547112 0.2970345 0.3315733 0.3920690
##
                 19313
                           19314
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                                               19316
                                                         19317
                                                                    19318
                                                                              19319
## Cluster 1 0.4433448 0.4980424 0.5595385 0.5726300 0.5282042 0.5326300 0.5021552
## Cluster 2 0.3687889 0.3509912 0.3317918 0.3278827 0.2957859 0.2941144 0.2974194
## Cluster 3 0.3426113 0.3995759 0.4136411 0.4521163 0.4971021 0.5134170 0.5059489
## Cluster 4 0.6336859 0.5909639 0.5291986 0.4825523 0.4866173 0.5069819 0.5781480
## Cluster 5 0.3569871 0.3887241 0.3597500 0.3921853 0.4625216 0.4105086 0.3518750
##
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                                                          19324
                                                                    19325
                                                                              19326
```

```
## Cluster 1 0.5229509 0.5166485 0.5421233 0.5229708 0.4667228 0.4371764 0.4299881
## Cluster 2 0.2855367 0.2847038 0.2892991 0.2775718 0.2858358 0.2634575 0.2698534
## Cluster 3 0.5101830 0.5329461 0.5601957 0.5843234 0.5310440 0.5545518 0.5617333
## Cluster 4 0.5022419 0.4828809 0.4797473 0.4222238 0.3723069 0.3949134 0.4505632
## Cluster 5 0.3860733 0.3775086 0.3744267 0.3834828 0.3721422 0.3673017 0.3476379
                 19327
                           19328
                                     19329
                                                         19331
                                                                    19332
##
                                               19330
## Cluster 1 0.4523117 0.4555663 0.4859562 0.5515212 0.6172122 0.7454536 0.7408276
## Cluster 2 0.2446217 0.2915044 0.3314839 0.3998974 0.4858035 0.5150440 0.5665337
## Cluster 3 0.5386851 0.5445546 0.5382496 0.5627574 0.5940723 0.6489986 0.6183730
## Cluster 4 0.5023394 0.4814982 0.5077473 0.5320144 0.5705596 0.5235271 0.5708736
  Cluster 5 0.3295172 0.3416940 0.3470905 0.3533405 0.4018578 0.4441466 0.4518103
                           19335
                                     19336
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                                                         19338
                                                                    19339
                                                                              19340
## Cluster 1 0.6568050 0.5896141 0.6046313 0.5463833 0.5716910 0.6702188 0.6663289
## Cluster 2 0.5964633 0.6391056 0.6250176 0.5857918 0.6233226 0.7083519 0.7534223
## Cluster 3 0.6297433 0.6176809 0.6330028 0.5900567 0.6561390 0.7478312 0.7534057
## Cluster 4 0.5088989 0.5357256 0.5135126 0.4808051 0.5099783 0.4948412 0.4822166
## Cluster 5 0.4523966 0.4676336 0.4187543 0.4095603 0.4540991 0.5580216 0.5827543
##
                 19341
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                                                                    19346
                                                                              19347
## Cluster 1 0.6255544 0.5664125 0.5259615 0.4353740 0.3549019 0.2895292 0.2387281
## Cluster 2 0.7032258 0.6407859 0.6193402 0.4853431 0.3877771 0.3058710 0.2337155
## Cluster 3 0.7322213 0.6530128 0.6423333 0.5952170 0.5102199 0.4339121 0.3664326
## Cluster 4 0.4818953 0.4411480 0.4050722 0.3474729 0.3284440 0.2833755 0.2474007
## Cluster 5 0.5772284 0.5720345 0.6205388 0.6432974 0.5641466 0.4874224 0.4209009
                 19348
                           19349
                                     19350
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                                                          19352
## Cluster 1 0.2027997 0.1906459 0.1787215 0.1790995 0.1737334 0.1654085 0.1738647
## Cluster 2 0.2057185 0.1850088 0.1750645 0.1609091 0.1542669 0.1494457 0.1667067
## Cluster 3 0.3329362 0.2862369 0.2509121 0.2289532 0.2241348 0.2136213 0.2147645
## Cluster 4 0.2354874 0.2209206 0.2142563 0.2174874 0.2104224 0.2084838 0.2424946
## Cluster 5 0.3587672 0.3535991 0.3101897 0.2859009 0.2755216 0.2682371 0.2514181
                 19355
                           19356
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                                                                    19360
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## Cluster 1 0.1730637 0.1758979 0.1805451 0.2007533 0.2468355 0.2977347 0.3945889
## Cluster 2 0.1793314 0.1855279 0.2195689 0.2138592 0.2527478 0.2591877 0.2946070
## Cluster 3 0.2155206 0.2179220 0.2594950 0.2530028 0.2593404 0.2589674 0.2985262
## Cluster 4 0.2484477 0.3013538 0.3352455 0.4055199 0.5354982 0.6067401 0.5949314
## Cluster 5 0.2617112 0.2460905 0.2527845 0.2534310 0.2793233 0.2997414 0.3060000
                           19363
                                     19364
                                               19365
                                                         19366
                 19362
                                                                    19367
## Cluster 1 0.4788793 0.5727175 0.5838302 0.6618210 0.6756379 0.6345438 0.5923687
## Cluster 2 0.3721672 0.4395924 0.4370616 0.4712375 0.4593519 0.3958358 0.3811848
## Cluster 3 0.3581248 0.4127532 0.4891745 0.5818326 0.6330723 0.6245773 0.6326738
## Cluster 4 0.5856787 0.6055993 0.5757473 0.5654440 0.5264657 0.4587762 0.4872491
## Cluster 5 0.3385129 0.3657888 0.4474181 0.4246595 0.4662931 0.4615517 0.4558060
                 19369
                           19370
                                     19371
                                               19372
                                                         19373
                                                                    19374
                                                                              19375
## Cluster 1 0.5952984 0.6297294 0.5985371 0.6037546 0.5896061 0.5407891 0.5438342
## Cluster 2 0.4210381 0.4340938 0.4165865 0.4317947 0.4177742 0.3572698 0.3953021
## Cluster 3 0.6246085 0.6629560 0.6820298 0.6585404 0.6072723 0.5477943 0.5826284
## Cluster 4 0.5291516 0.5210975 0.5217978 0.4558375 0.4685957 0.4677256 0.4544404
## Cluster 5 0.4573922 0.4932284 0.4618879 0.4296983 0.3966293 0.4188879 0.3836940
                                                          19380
##
                 19376
                           19377
                                     19378
                                               19379
                                                                    19381
                                                                              19382
## Cluster 1 0.5242944 0.5477467 0.6075411 0.6678820 0.7021830 0.7503581 0.7397109
## Cluster 2 0.3970821 0.3750880 0.3909238 0.4470499 0.4949560 0.6273812 0.6629853
## Cluster 3 0.6029787 0.6085745 0.6384908 0.6624227 0.7023333 0.6900113 0.6996667
## Cluster 4 0.4508845 0.4867365 0.5665451 0.5837653 0.6069747 0.6542852 0.6517329
## Cluster 5 0.3959440 0.4514741 0.4463190 0.4492845 0.5066078 0.4636681 0.4811034
##
                 19383
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                                               19386
                                                          19387
                                                                    19388
                                                                              19389
```

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## Cluster 1 0.6848289 0.6297719 0.5982865 0.5762175 0.6701777 0.6575438 0.6007971
## Cluster 2 0.7282375 0.6554927 0.6040205 0.5668563 0.6168446 0.6478211 0.6312375
## Cluster 3 0.6957206 0.6677234 0.6606794 0.6792525 0.7489574 0.7373730 0.7270213
## Cluster 4 0.5784729 0.5479025 0.4838267 0.4295632 0.5000903 0.4670542 0.4398700
## Cluster 5 0.5337845 0.5071724 0.5307543 0.5052328 0.5835216 0.6037845 0.6331379
                 19390
                           19391
                                     19392
                                               19393
                                                         19394
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##
## Cluster 1 0.5338568 0.4718183 0.4176936 0.3521353 0.2955292 0.2393966 0.2225146
## Cluster 2 0.5441290 0.4935630 0.4327595 0.3585543 0.3023695 0.2560293 0.2093578
## Cluster 3 0.6456227 0.5885489 0.5334426 0.4976213 0.4177475 0.3615291 0.3238525
## Cluster 4 0.4273357 0.3623177 0.3470794 0.2951877 0.2733032 0.2775199 0.2404585
  Cluster 5 0.5673578 0.5798664 0.5288879 0.4841595 0.4907802 0.4426164 0.4114655
                           19398
                                     19399
                 19397
                                               19400
                                                         19401
                                                                    19402
## Cluster 1 0.2075265 0.1856194 0.1817082 0.1763024 0.1688210 0.1717454 0.1764072
## Cluster 2 0.1974194 0.1880880 0.1688006 0.1589150 0.1645865 0.1568856 0.1832258
## Cluster 3 0.2943021 0.2612411 0.2390028 0.2330496 0.2252213 0.2185943 0.2202440
## Cluster 4 0.2437798 0.2328412 0.2261733 0.2352671 0.2389025 0.2678448 0.2651444
## Cluster 5 0.3704440 0.3400776 0.3497155 0.3056724 0.2573836 0.2547586 0.2569267
##
                 19404
                           19405
                                     19406
                                               19407
                                                         19408
                                                                    19409
                                                                              19410
## Cluster 1 0.1716379 0.1796220 0.1864960 0.2173568 0.2423899 0.3346485 0.4226220
## Cluster 2 0.1971349 0.2060176 0.1954780 0.2214135 0.2396422 0.2385630 0.2934340
## Cluster 3 0.2267078 0.2422355 0.2457631 0.2372681 0.2403844 0.2619021 0.3333234
## Cluster 4 0.2939675 0.3563357 0.4018159 0.4573755 0.4606606 0.4537148 0.4953321
## Cluster 5 0.2495000 0.2319828 0.2461767 0.2554009 0.2646810 0.3178190 0.3745733
                 19411
                           19412
                                     19413
                                               19414
                                                          19415
                                                                    19416
## Cluster 1 0.5053302 0.5831552 0.6351127 0.6536088 0.6996923 0.7146088 0.7127228
## Cluster 2 0.3684106 0.4104809 0.4625748 0.4535630 0.4646862 0.4990704 0.5425865
## Cluster 3 0.4184766 0.4841574 0.5897603 0.6524525 0.6260851 0.6861787 0.7624865
## Cluster 4 0.5361408 0.5244657 0.5815848 0.6148953 0.5665776 0.5581155 0.6216137
## Cluster 5 0.3579784 0.4172241 0.4581422 0.4255043 0.4915819 0.4705129 0.4577586
                 19418
                           19419
                                     19420
                                               19421
                                                         19422
                                                                    19423
                                                                              19424
## Cluster 1 0.6871525 0.6892135 0.6404324 0.5605411 0.5594775 0.5567573 0.5393568
## Cluster 2 0.5424106 0.5398358 0.4709648 0.4252082 0.3959179 0.4114311 0.4038504
## Cluster 3 0.8017333 0.7802638 0.7901291 0.7477759 0.6525149 0.6295674 0.6065603
## Cluster 4 0.6680830 0.6747906 0.6640397 0.5598195 0.5197220 0.4944874 0.4812491
## Cluster 5 0.5172672 0.4257328 0.4820733 0.4600216 0.4002759 0.3972759 0.3740388
                           19426
                                     19427
                                               19428
                                                         19429
                 19425
                                                                    19430
                                                                              19431
## Cluster 1 0.5360225 0.5669788 0.6116034 0.6684801 0.7068873 0.6452546 0.6384973
## Cluster 2 0.4268504 0.4281789 0.4095748 0.4544370 0.5220792 0.5609120 0.6697478
## Cluster 3 0.5897489 0.5749631 0.5828525 0.5828426 0.5673957 0.5887135 0.5815418
## Cluster 4 0.5097581 0.5122202 0.5777220 0.6058123 0.5413827 0.5344332 0.5455884
## Cluster 5 0.4309095 0.3982586 0.4155000 0.4465905 0.4599828 0.4903060 0.5038836
                 19432
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                                               19435
                                                         19436
                                                                    19437
                                                                              19438
## Cluster 1 0.6320822 0.6305477 0.6389377 0.6517613 0.6662215 0.6114934 0.5373753
## Cluster 2 0.6747507 0.6800792 0.7745396 0.7559326 0.6750499 0.6343666 0.5955806
## Cluster 3 0.6415645 0.6539872 0.7218652 0.7551035 0.7321603 0.7224780 0.6428383
## Cluster 4 0.4945126 0.4555740 0.5132347 0.5604332 0.5328700 0.5228159 0.4289350
## Cluster 5 0.4441983 0.5045129 0.5225647 0.6083664 0.6425302 0.6381681 0.6408190
##
                 19439
                           19440
                                     19441
                                               19442
                                                          19443
                                                                    19444
                                                                              19445
## Cluster 1 0.4614496 0.3839655 0.3002215 0.2435345 0.2104562 0.1882825 0.1792454
## Cluster 2 0.4885191 0.3760909 0.3151378 0.2638211 0.2334604 0.1905630 0.1715543
## Cluster 3 0.5902099 0.5340213 0.4427957 0.3775333 0.3273901 0.2760950 0.2529319
## Cluster 4 0.3838917 0.3526498 0.3235848 0.2670686 0.2530758 0.2507329 0.2391155
## Cluster 5 0.6496767 0.6559224 0.5880086 0.4920948 0.4512414 0.3753836 0.3115302
##
                 19446
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```

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## Cluster 1 0.1773767 0.1690093 0.1632918 0.1641552 0.1702984 0.1811499 0.1866432
## Cluster 2 0.1621114 0.1543226 0.1527859 0.1527449 0.1518328 0.1743666 0.2068182
## Cluster 3 0.2258965 0.2198965 0.2112794 0.2058652 0.2149078 0.2066894 0.2239645
## Cluster 4 0.2123394 0.2193430 0.2112383 0.2185343 0.2618736 0.2840578 0.3001986
## Cluster 5 0.2837759 0.3096767 0.2815647 0.2593448 0.2436724 0.2568534 0.2560948
                 19453
                                               19456
##
                           19454
                                     19455
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                                                                    19458
## Cluster 1 0.1969271 0.2153156 0.2919271 0.3520968 0.4324894 0.4565066 0.4648674
## Cluster 2 0.2375425 0.3061818 0.3382229 0.3764135 0.3471848 0.3294282 0.3029736
## Cluster 3 0.2429830 0.2689177 0.2878454 0.3188879 0.3206979 0.3585972 0.3879447
## Cluster 4 0.3899711 0.5155957 0.6221336 0.6083394 0.5868014 0.5069278 0.4235740
  Cluster 5 0.2548190 0.2693491 0.2845086 0.3315086 0.3844483 0.3441940 0.3495905
                                     19462
                 19460
                           19461
                                               19463
                                                          19464
                                                                    19465
                                                                              19466
## Cluster 1 0.5173435 0.5438515 0.5350557 0.5139244 0.5239708 0.5259390 0.5414271
## Cluster 2 0.3121232 0.3046188 0.2678974 0.2688035 0.2925455 0.2861261 0.3012874
## Cluster 3 0.4321787 0.4457617 0.4700227 0.5257418 0.5196043 0.5817915 0.5801333
## Cluster 4 0.4636787 0.4470650 0.4495451 0.5112924 0.4405812 0.4617184 0.4736823
## Cluster 5 0.3732716 0.3678060 0.3566034 0.3831164 0.4091897 0.3769267 0.3994397
##
                 19467
                           19468
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                                               19470
                                                          19471
                                                                    19472
                                                                              19473
## Cluster 1 0.5341525 0.4823581 0.4469509 0.4532798 0.4837759 0.5077454 0.5305212
## Cluster 2 0.3091877 0.2964839 0.2869765 0.2626188 0.2979296 0.2968856 0.3522405
## Cluster 3 0.5963121 0.5721121 0.5704156 0.5703929 0.5446553 0.5881404 0.6002553
## Cluster 4 0.4897690 0.5036354 0.4276318 0.4411227 0.4452996 0.5067329 0.5772708
## Cluster 5 0.4025991 0.3770216 0.3868362 0.3819224 0.3644052 0.4150517 0.3939267
                 19474
                           19475
                                     19476
                                               19477
                                                          19478
                                                                    19479
## Cluster 1 0.6212069 0.7514562 0.8108634 0.8139602 0.7228448 0.6853130 0.6330066
## Cluster 2 0.3520411 0.4065630 0.5253636 0.5659150 0.6527889 0.7520117 0.7483343
## Cluster 3 0.7130312 0.7035560 0.7315277 0.6781433 0.6378142 0.6831177 0.6767844
## Cluster 4 0.6789386 0.6534946 0.7168484 0.6522347 0.5470144 0.5847617 0.5348339
## Cluster 5 0.3955259 0.4448319 0.4679483 0.5287543 0.4872716 0.4863233 0.5229526
##
                 19481
                           19482
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                                                          19485
                                                                    19486
                                                                              19487
## Cluster 1 0.6397467 0.6322825 0.7530053 0.6937493 0.6702573 0.5808753 0.4956804
## Cluster 2 0.6880528 0.7222317 0.8659736 0.8316422 0.7499707 0.6923109 0.5828622
## Cluster 3 0.6311972 0.7033489 0.7805518 0.7903773 0.7644709 0.7058312 0.6488723
## Cluster 4 0.5124043 0.5644693 0.6114477 0.5703249 0.5272166 0.4841588 0.4313863
## Cluster 5 0.4583922 0.5014095 0.6260474 0.6336853 0.6401250 0.6695043 0.6592974
                                               19491
                           19489
                                     19490
                                                          19492
                 19488
                                                                    19493
                                                                              19494
## Cluster 1 0.3930371 0.3146048 0.2415000 0.2022586 0.1791724 0.1741897 0.1692162
## Cluster 2 0.4176217 0.3069971 0.2442786 0.2081026 0.1742170 0.1688182 0.1613666
## Cluster 3 0.5848979 0.4746752 0.3864028 0.3067603 0.2798298 0.2403830 0.2243957
## Cluster 4 0.3448809 0.3146426 0.2825704 0.2479675 0.2292130 0.2211300 0.1982996
## Cluster 5 0.6784526 0.5936983 0.5177759 0.4262414 0.3389095 0.3002241 0.2732371
                 19495
                           19496
                                     19497
                                               19498
                                                          19499
                                                                    19500
                                                                              19501
## Cluster 1 0.1595703 0.1593316 0.1547347 0.1607599 0.1743515 0.1797042 0.1872666
## Cluster 2 0.1660411 0.1420381 0.1488240 0.1421760 0.1690880 0.1815425 0.2321818
## Cluster 3 0.2106298 0.2086312 0.2026596 0.1993844 0.1994213 0.2116553 0.2494709
## Cluster 4 0.2144043 0.2036895 0.2061083 0.2575162 0.2725596 0.3347148 0.3946859
## Cluster 5 0.2705129 0.2676422 0.2453578 0.2315000 0.2648966 0.2381724 0.2432284
                           19503
                                                          19506
##
                 19502
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                                                                    19507
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## Cluster 1 0.2286618 0.2911300 0.3612745 0.4402467 0.4781618 0.5031300 0.4979523
## Cluster 2 0.2672375 0.3579765 0.4097918 0.3703226 0.3068915 0.2967742 0.3184692
## Cluster 3 0.2688752 0.2804355 0.3079560 0.3506270 0.3481021 0.3683447 0.4358213
## Cluster 4 0.5148520 0.6594657 0.6361913 0.6234693 0.6363682 0.4821119 0.4897545
## Cluster 5 0.2704095 0.2850043 0.3053017 0.3860086 0.3678879 0.3686164 0.3154526
##
                 19509
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                                                                              19515
```

```
## Cluster 1 0.5392573 0.5352798 0.4992851 0.4635517 0.4865729 0.5346326 0.5432427
## Cluster 2 0.2605015 0.2781994 0.2373724 0.2431525 0.2453431 0.2673988 0.2774399
## Cluster 3 0.4527660 0.4662496 0.5187532 0.5534511 0.5856681 0.6088567 0.5754780
## Cluster 4 0.4804621 0.4321444 0.4740758 0.4891191 0.4273032 0.4923177 0.4631264
## Cluster 5 0.3519138 0.3456034 0.3394267 0.3552888 0.3606121 0.3643621 0.4276767
                 19516
                                     19518
                                                         19520
                                                                    19521
##
                           19517
                                               19519
## Cluster 1 0.5172427 0.4860385 0.4540119 0.4524098 0.4726910 0.5434111 0.6443979
## Cluster 2 0.2894282 0.2649707 0.2598035 0.2515132 0.2863783 0.3420411 0.3517977
## Cluster 3 0.5942922 0.5788014 0.5756865 0.6025943 0.6279929 0.6719929 0.7048482
## Cluster 4 0.3855415 0.4019964 0.4173682 0.4184621 0.4534007 0.4825235 0.5336462
  Cluster 5 0.4264483 0.4110560 0.3831681 0.3673190 0.3655388 0.3738233 0.4048750
                           19524
                                     19525
                                               19526
                 19523
                                                         19527
                                                                    19528
                                                                              19529
## Cluster 1 0.7796790 0.8305146 0.8250332 0.7385464 0.7380942 0.6758422 0.6333820
## Cluster 2 0.4184809 0.5306950 0.6096393 0.6159355 0.6782287 0.6918974 0.7116041
## Cluster 3 0.6819191 0.7015730 0.7112326 0.6561574 0.6442255 0.6343858 0.6349560
## Cluster 4 0.5946570 0.6265487 0.6210325 0.5668484 0.6056390 0.5729711 0.5630505
## Cluster 5 0.4585129 0.4448405 0.5011293 0.4891078 0.5177543 0.5136940 0.5242241
##
                 19530
                           19531
                                     19532
                                               19533
                                                         19534
                                                                    19535
                                                                              19536
## Cluster 1 0.6821897 0.7532149 0.7280106 0.6573435 0.6121658 0.5379523 0.4535172
## Cluster 2 0.7344252 0.8236305 0.8210117 0.7440674 0.6971642 0.5746833 0.4556510
## Cluster 3 0.6909972 0.7822780 0.7786525 0.7152397 0.7137106 0.6414028 0.5909759
## Cluster 4 0.5777437 0.6742599 0.6265451 0.5851227 0.5224946 0.5027653 0.4193935
## Cluster 5 0.5509009 0.6699957 0.6645043 0.6653879 0.6526983 0.7366422 0.7327845
                 19537
                           19538
                                     19539
                                               19540
                                                          19541
## Cluster 1 0.3360345 0.2582401 0.2175477 0.1901286 0.1805584 0.1775080 0.1679430
## Cluster 2 0.3296276 0.2836804 0.2119501 0.1886979 0.1702698 0.1654370 0.1548387
## Cluster 3 0.4859447 0.3948837 0.3152085 0.2730681 0.2348411 0.2208312 0.2122312
## Cluster 4 0.3155126 0.2542022 0.2169206 0.2218195 0.2170722 0.1981769 0.1994621
## Cluster 5 0.5785862 0.4935819 0.4446422 0.3512500 0.2897716 0.2734052 0.2975647
##
                 19544
                           19545
                                     19546
                                               19547
                                                         19548
                                                                    19549
                                                                              19550
## Cluster 1 0.1629377 0.1563952 0.1671565 0.1734881 0.1879775 0.1858170 0.2205212
## Cluster 2 0.1421261 0.1440440 0.1517155 0.1771320 0.1886334 0.2382903 0.3082493
## Cluster 3 0.2031745 0.1905603 0.1976057 0.1996014 0.2098071 0.2500667 0.2723716
## Cluster 4 0.1800289 0.2025596 0.2351877 0.2546859 0.2986390 0.3579242 0.5450794
## Cluster 5 0.2728578 0.2421552 0.2234353 0.2348534 0.2582112 0.2436466 0.2803103
                           19552
                                     19553
                                               19554
                                                         19555
                 19551
                                                                    19556
                                                                              19557
## Cluster 1 0.2948952 0.3539615 0.4347361 0.4739019 0.5390424 0.5776114 0.5514204
## Cluster 2 0.3515660 0.3799648 0.3818240 0.3622757 0.3162141 0.3046569 0.2664897
## Cluster 3 0.3031901 0.3169433 0.3416993 0.3727376 0.4017589 0.4292638 0.4434582
## Cluster 4 0.6563899 0.7364260 0.5772924 0.5289783 0.5406931 0.4479531 0.4583646
## Cluster 5 0.2922198 0.3610000 0.3483405 0.3549526 0.3597716 0.3868534 0.4147328
                 19558
                           19559
                                     19560
                                               19561
                                                         19562
                                                                    19563
                                                                              19564
## Cluster 1 0.5367785 0.5053196 0.4941883 0.4914801 0.5210279 0.5007321 0.4593011
## Cluster 2 0.3132933 0.2892757 0.2935894 0.2630997 0.2779120 0.2908123 0.3062082
## Cluster 3 0.4496326 0.4964284 0.5244482 0.5618383 0.5980936 0.6168454 0.5733007
## Cluster 4 0.4479025 0.4098845 0.4447545 0.4014079 0.4039964 0.4645523 0.4235523
## Cluster 5 0.3545086 0.3412500 0.3574095 0.4134526 0.3747802 0.4108922 0.3431293
                 19565
                           19566
                                     19567
                                                          19569
##
                                               19568
                                                                    19570
                                                                              19571
## Cluster 1 0.4495968 0.4813846 0.4594390 0.4463806 0.4975371 0.5738674 0.7119854
## Cluster 2 0.2809267 0.2449179 0.2871584 0.2909062 0.3008827 0.2921466 0.3861730
## Cluster 3 0.5249801 0.5405262 0.5487603 0.5768355 0.6250638 0.6587660 0.6608823
## Cluster 4 0.4165993 0.4908412 0.4336173 0.4412563 0.4882816 0.5858339 0.6505921
## Cluster 5 0.3466078 0.3095560 0.3214871 0.3352974 0.3455991 0.3565129 0.4129957
##
                 19572
                           19573
                                     19574
                                               19575
                                                         19576
                                                                    19577
                                                                              19578
```

```
## Cluster 1 0.7776499 0.8039164 0.7264496 0.7487308 0.7024469 0.6791406 0.7168952
## Cluster 2 0.4890674 0.5655836 0.6159531 0.7002493 0.7052815 0.6994751 0.7791056
## Cluster 3 0.7093050 0.6731206 0.6472284 0.6378340 0.6664184 0.6464270 0.7213872
## Cluster 4 0.7484874 0.6458881 0.5605307 0.5974549 0.5704224 0.4904296 0.5218014
## Cluster 5 0.4306853 0.5131422 0.5126595 0.5020517 0.4253103 0.4510517 0.6057284
                 19579
                           19580
                                     19581
                                               19582
                                                         19583
##
                                                                    19584
## Cluster 1 0.7426830 0.7084814 0.6812918 0.5683780 0.4980716 0.4003462 0.3236897
## Cluster 2 0.8866452 0.8294927 0.7574047 0.6432639 0.5484370 0.4619531 0.3156774
## Cluster 3 0.7732766 0.7927589 0.7542950 0.6922610 0.6608340 0.5797574 0.4662738
## Cluster 4 0.5924404 0.5378051 0.5461552 0.4753069 0.4285740 0.3619892 0.2791372
  Cluster 5 0.6480302 0.7012629 0.6487845 0.6578405 0.7169655 0.6804871 0.6023922
                 19586
                                     19588
                           19587
                                               19589
                                                         19590
                                                                    19591
                                                                              19592
## Cluster 1 0.2494138 0.2049708 0.1896897 0.1679019 0.1714125 0.1632639 0.1571605
## Cluster 2 0.2384076 0.2034604 0.1755924 0.1793490 0.1697742 0.1499765 0.1473930
## Cluster 3 0.3710823 0.3136511 0.2605305 0.2266142 0.2151589 0.2073050 0.2018468
## Cluster 4 0.2547545 0.2142780 0.2237040 0.2164152 0.2202780 0.2114874 0.1901625
## Cluster 5 0.4823405 0.4049957 0.3302845 0.2975991 0.2796724 0.2778017 0.2820991
##
                 19593
                           19594
                                     19595
                                               19596
                                                         19597
                                                                    19598
                                                                              19599
## Cluster 1 0.1638647 0.1678077 0.1767003 0.1792480 0.1890424 0.2183966 0.3315080
## Cluster 2 0.1479062 0.1738886 0.1752053 0.1949443 0.2182874 0.3008710 0.3795836
## Cluster 3 0.1950000 0.1883333 0.1926809 0.2018667 0.2426766 0.2828184 0.2805433
## Cluster 4 0.2052599 0.2546462 0.2721913 0.2837184 0.3658195 0.4982022 0.6165018
## Cluster 5 0.2642716 0.2251681 0.2470259 0.2336940 0.2606853 0.2595991 0.2630388
                 19600
                           19601
                                     19602
                                               19603
                                                          19604
                                                                    19605
## Cluster 1 0.3819151 0.4763674 0.5029377 0.5245119 0.5478515 0.5465013 0.5047268
## Cluster 2 0.4185836 0.4110117 0.3561202 0.3018152 0.3044956 0.2730000 0.2905660
## Cluster 3 0.3227943 0.3643801 0.3850454 0.4009660 0.4399234 0.4622468 0.5091532
## Cluster 4 0.6094152 0.6181877 0.5650217 0.4996209 0.4515271 0.4681841 0.5341516
## Cluster 5 0.3629009 0.3925043 0.3817112 0.3794440 0.3482974 0.3173578 0.3894741
##
                 19607
                           19608
                                     19609
                                               19610
                                                         19611
                                                                    19612
                                                                              19613
## Cluster 1 0.5097918 0.4740332 0.4786366 0.4975066 0.4953037 0.4593183 0.4201950
## Cluster 2 0.2926950 0.2874868 0.2608592 0.2651026 0.2494223 0.2473226 0.2868974
## Cluster 3 0.5189674 0.4925035 0.5400440 0.5483277 0.5366397 0.5083773 0.4916000
## Cluster 4 0.4628881 0.4529892 0.4484152 0.4908014 0.4175776 0.4779242 0.4254043
## Cluster 5 0.3764526 0.3963060 0.3439440 0.3765043 0.3901250 0.3807198 0.3401078
                           19615
                                     19616
                                                         19618
                 19614
                                               19617
                                                                    19619
                                                                              19620
## Cluster 1 0.4032228 0.4149244 0.4103090 0.4859271 0.5878621 0.7125968 0.7636923
## Cluster 2 0.2832317 0.2908182 0.2399003 0.2809912 0.2927918 0.3655337 0.4586481
## Cluster 3 0.4465674 0.4771574 0.5102284 0.5553248 0.6480411 0.6241404 0.6668113
## Cluster 4 0.4140505 0.4194621 0.4202888 0.4828087 0.5408845 0.5952671 0.5525560
## Cluster 5 0.3314267 0.3116207 0.3451379 0.3792457 0.3928578 0.3926207 0.4712457
                 19621
                           19622
                                     19623
                                               19624
                                                         19625
                                                                    19626
                                                                              19627
## Cluster 1 0.7514443 0.6554058 0.6667639 0.6357997 0.6625995 0.7115981 0.7902029
## Cluster 2 0.5077449 0.6047713 0.6911613 0.6558006 0.6426510 0.7103519 0.8073314
## Cluster 3 0.6669957 0.6311702 0.6845191 0.6560539 0.6201901 0.7252241 0.8439858
## Cluster 4 0.5612058 0.5122130 0.5246895 0.5588339 0.4774657 0.5084621 0.5274188
## Cluster 5 0.4136164 0.4333017 0.4328966 0.4931940 0.4799741 0.5143233 0.6732716
                           19629
##
                 19628
                                     19630
                                               19631
                                                          19632
                                                                    19633
                                                                              19634
## Cluster 1 0.7180796 0.7354602 0.5999602 0.5298607 0.4165027 0.3136844 0.2446207
## Cluster 2 0.7804076 0.7432757 0.7181320 0.6134106 0.4494487 0.3276628 0.2541466
## Cluster 3 0.7999234 0.7805333 0.7358454 0.6865277 0.5437631 0.4549887 0.3892340
## Cluster 4 0.5551083 0.4825307 0.4660975 0.4141336 0.3422166 0.2936462 0.2591841
## Cluster 5 0.6933491 0.6792414 0.5972284 0.7143017 0.6553276 0.5810690 0.5101250
##
                 19635
                           19636
                                     19637
                                               19638
                                                         19639
                                                                    19640
```

```
## Cluster 1 0.2077679 0.1843183 0.1794775 0.1690080 0.1641790 0.1611233 0.1652321
## Cluster 2 0.2356833 0.1822757 0.1747654 0.1696921 0.1541144 0.1455249 0.1487625
## Cluster 3 0.3135830 0.2716496 0.2502851 0.2359291 0.2120851 0.2018766 0.1984284
## Cluster 4 0.2267076 0.2443682 0.2363827 0.1995307 0.2208736 0.2192238 0.2256715
## Cluster 5 0.4278190 0.3627284 0.3312802 0.2665259 0.2822112 0.2634224 0.2431121
                 19642
                           19643
                                     19644
                                                          19646
##
                                               19645
                                                                    19647
## Cluster 1 0.1668767 0.1719708 0.1819257 0.1930809 0.2291459 0.3186088 0.3863050
## Cluster 2 0.1573138 0.1697801 0.1747947 0.2315220 0.3158592 0.3416540 0.3956334
## Cluster 3 0.1892496 0.1986823 0.2136596 0.2641844 0.2936085 0.2762468 0.3129589
## Cluster 4 0.2731552 0.2599783 0.3034946 0.3383321 0.4706715 0.5690614 0.6101877
  Cluster 5 0.2324397 0.2365603 0.2367026 0.2512198 0.2629871 0.2889828 0.3306034
                                     19651
                 19649
                           19650
                                               19652
                                                          19653
                                                                    19654
                                                                              19655
## Cluster 1 0.4890597 0.5255809 0.5282175 0.5502759 0.5658568 0.5121525 0.4883568
## Cluster 2 0.4308680 0.3912639 0.3568094 0.3178240 0.3654399 0.2994223 0.2866716
## Cluster 3 0.3506184 0.4044241 0.4103702 0.4426936 0.4965135 0.5047277 0.5205872
## Cluster 4 0.5718159 0.5437870 0.4527581 0.4726426 0.4118123 0.4513646 0.4341300
## Cluster 5 0.3450733 0.3248750 0.3510043 0.3846810 0.4285862 0.3681336 0.3457888
##
                 19656
                           19657
                                     19658
                                               19659
                                                          19660
                                                                    19661
                                                                              19662
## Cluster 1 0.4885756 0.4965703 0.5119005 0.5260013 0.4618050 0.4442109 0.4144920
## Cluster 2 0.2765161 0.3172434 0.3210059 0.3543343 0.3370762 0.2587214 0.2467419
## Cluster 3 0.5039433 0.5762894 0.5543319 0.5887333 0.5474596 0.5355844 0.5459050
## Cluster 4 0.4318520 0.4257004 0.4500397 0.4203863 0.3806209 0.3763430 0.3911083
## Cluster 5 0.3747888 0.3854957 0.3949138 0.4371724 0.4032500 0.3121078 0.3808750
                 19663
                           19664
                                     19665
                                               19666
                                                          19667
                                                                    19668
## Cluster 1 0.4020703 0.4271393 0.4654363 0.5716499 0.6891101 0.7263714 0.7334973
## Cluster 2 0.2822933 0.2766364 0.3119795 0.3316774 0.3881935 0.4555132 0.4701789
## Cluster 3 0.5514752 0.5361816 0.5607362 0.5995730 0.6124695 0.6343333 0.6676582
## Cluster 4 0.4473466 0.4996462 0.4856354 0.5183899 0.5700036 0.5586282 0.5665884
## Cluster 5 0.3388491 0.3610991 0.4000948 0.3833836 0.3906853 0.4094741 0.4444612
##
                 19670
                           19671
                                     19672
                                               19673
                                                          19674
                                                                    19675
                                                                              19676
## Cluster 1 0.6723156 0.7006950 0.6595676 0.6379721 0.6736379 0.7123886 0.6726592
## Cluster 2 0.5653050 0.6317654 0.6537038 0.6579589 0.7512434 0.8362287 0.7986481
## Cluster 3 0.6453645 0.6169801 0.6123589 0.6201007 0.7120468 0.7958525 0.7614326
## Cluster 4 0.5628881 0.5426462 0.5217401 0.5188845 0.5055343 0.5442708 0.5690794
  Cluster 5 0.5244052 0.5289138 0.5181509 0.5215474 0.5631034 0.6709741 0.7371164
                                     19679
                 19677
                           19678
                                               19680
                                                          19681
                                                                    19682
                                                                              19683
## Cluster 1 0.6204430 0.5587175 0.4890027 0.4213422 0.3302918 0.2808515 0.2439072
## Cluster 2 0.7493138 0.6810938 0.5908416 0.4716804 0.3886628 0.3271261 0.2572317
## Cluster 3 0.7562709 0.7070468 0.6383418 0.5670553 0.4917773 0.4057844 0.3508383
## Cluster 4 0.4691480 0.4215090 0.4004477 0.3483177 0.3039639 0.2911047 0.2505560
## Cluster 5 0.6793405 0.6681250 0.7132716 0.6765259 0.6042845 0.5292026 0.4615086
                 19684
                           19685
                                     19686
                                               19687
                                                          19688
                                                                    19689
                                                                              19690
## Cluster 1 0.2146180 0.1919576 0.1804894 0.1748024 0.1658316 0.1614019 0.1619828
## Cluster 2 0.2175425 0.1762434 0.1744194 0.1520293 0.1517419 0.1467977 0.1588094
## Cluster 3 0.3048879 0.2747021 0.2475092 0.2293773 0.2195291 0.2056979 0.1952780
## Cluster 4 0.2486137 0.2467870 0.2091480 0.2131119 0.2125162 0.2249531 0.2631083
## Cluster 5 0.3901034 0.3427198 0.2971466 0.2911379 0.2725259 0.2413276 0.2284397
                 19691
                           19692
                                     19693
                                                          19695
##
                                               19694
                                                                    19696
                                                                              19697
## Cluster 1 0.1719337 0.1760902 0.1835809 0.2068727 0.2481963 0.2958342 0.3791220
## Cluster 2 0.1714194 0.1839062 0.1909883 0.2313636 0.2678651 0.2704282 0.3151789
## Cluster 3 0.2073702 0.2236738 0.2406312 0.2547872 0.2403532 0.2606809 0.3004043
## Cluster 4 0.2736931 0.2897365 0.3176534 0.3941227 0.4969747 0.5919170 0.5405487
## Cluster 5 0.2660517 0.2555948 0.2420259 0.2529483 0.2646293 0.3295603 0.2964483
##
                 19698
                           19699
                                     19700
                                               19701
                                                          19702
                                                                    19703
                                                                              19704
```

```
## Cluster 1 0.4759695 0.5262042 0.5845902 0.6070133 0.6492095 0.6436034 0.6306790
## Cluster 2 0.3898358 0.3718270 0.4389912 0.4725689 0.4708886 0.4330088 0.4431232
## Cluster 3 0.3468922 0.4179617 0.4645021 0.5430454 0.5719773 0.5898099 0.6239801
## Cluster 4 0.5860722 0.5765957 0.4733827 0.4301841 0.4109422 0.4806173 0.4295740
## Cluster 5 0.3543836 0.3732371 0.4341250 0.4283836 0.5069397 0.4418017 0.4336379
                 19705
                           19706
                                     19707
                                               19708
                                                          19709
##
                                                                    19710
                                                                              19711
## Cluster 1 0.6166777 0.6417414 0.6109934 0.6278422 0.5776989 0.5823674 0.5266764
## Cluster 2 0.4278739 0.4609120 0.4366305 0.3793812 0.3874751 0.4187126 0.4205572
## Cluster 3 0.6299291 0.6499787 0.6771787 0.6723191 0.6258142 0.5854298 0.5796340
## Cluster 4 0.4662094 0.4986968 0.4712671 0.4518953 0.4774693 0.5111733 0.4693357
  Cluster 5 0.4651983 0.4884397 0.4440560 0.4115474 0.4406724 0.4244310 0.3915388
                 19712
                                                          19716
                           19713
                                     19714
                                               19715
                                                                    19717
                                                                              19718
## Cluster 1 0.5295106 0.5515531 0.6160663 0.6502931 0.7687188 0.7583621 0.7570690
## Cluster 2 0.4120440 0.4296598 0.4319003 0.4497654 0.5468563 0.6320205 0.6679032
## Cluster 3 0.5800553 0.6002284 0.6244837 0.6378922 0.6854865 0.6735319 0.6939972
## Cluster 4 0.4985235 0.4961661 0.5595523 0.5872852 0.5613899 0.5209892 0.5401083
## Cluster 5 0.4512931 0.4662457 0.4777716 0.4007328 0.4602457 0.4828405 0.5007974
##
                 19719
                           19720
                                     19721
                                               19722
                                                          19723
                                                                    19724
                                                                              19725
## Cluster 1 0.7432215 0.6863249 0.6876777 0.6980119 0.6986830 0.6557241 0.6058515
## Cluster 2 0.7388974 0.7097361 0.6970616 0.6986716 0.7173930 0.7290704 0.6539677
## Cluster 3 0.6994567 0.6733064 0.7226369 0.7723972 0.7906028 0.7525319 0.7048780
## Cluster 4 0.5834043 0.5259386 0.4843610 0.4584693 0.5146462 0.5063213 0.4453430
## Cluster 5 0.5560905 0.5711250 0.6475948 0.6440517 0.6781638 0.6923276 0.6502802
                 19726
                           19727
                                     19728
                                               19729
                                                          19730
                                                                    19731
## Cluster 1 0.5376446 0.4984125 0.4027573 0.3384655 0.2862056 0.2453581 0.2198621
## Cluster 2 0.5993343 0.5343695 0.4464252 0.3506422 0.3467449 0.2611466 0.2382874
## Cluster 3 0.6629773 0.6235021 0.5480511 0.4803730 0.4110397 0.3567277 0.3158667
## Cluster 4 0.4157004 0.4047762 0.3287942 0.2871408 0.2667040 0.2276823 0.2343321
## Cluster 5 0.6479957 0.6382845 0.6221897 0.5558578 0.4929138 0.4336207 0.3654871
##
                 19733
                           19734
                                     19735
                                               19736
                                                          19737
                                                                    19738
                                                                              19739
## Cluster 1 0.2041048 0.1902626 0.1791260 0.1695517 0.1636525 0.1793117 0.1698302
## Cluster 2 0.2307977 0.2146686 0.1975982 0.1805806 0.1749413 0.1693783 0.1701848
## Cluster 3 0.2865319 0.2664340 0.2460298 0.2305560 0.2212043 0.2117674 0.2148879
## Cluster 4 0.2449350 0.2204874 0.2185957 0.2152130 0.2275307 0.2682888 0.2700108
## Cluster 5 0.3265000 0.2975517 0.3046422 0.2740172 0.2566466 0.2254052 0.2509871
                 19740
                           19741
                                     19742
                                               19743
                                                          19744
                                                                    19745
                                                                              19746
## Cluster 1 0.1738515 0.1860159 0.1827944 0.2089363 0.2330756 0.2866538 0.3688050
## Cluster 2 0.1807478 0.1839883 0.2055982 0.2115601 0.2515396 0.2584780 0.2964927
## Cluster 3 0.2206454 0.2348071 0.2490468 0.2350028 0.2433872 0.2659333 0.3289461
## Cluster 4 0.2772094 0.3229386 0.3445740 0.3967798 0.4856318 0.4847112 0.4645343
## Cluster 5 0.2426509 0.2360259 0.2497198 0.2678836 0.2570086 0.2718233 0.2913319
                 19747
                           19748
                                     19749
                                               19750
                                                          19751
                                                                    19752
                                                                              19753
## Cluster 1 0.4672440 0.5837679 0.6514496 0.7383130 0.7375584 0.7527480 0.7237321
## Cluster 2 0.3392727 0.4084751 0.4276598 0.4277390 0.4849707 0.5121290 0.5042522
## Cluster 3 0.4075972 0.4505759 0.5242993 0.5634837 0.6584567 0.7375915 0.8093872
## Cluster 4 0.5100505 0.4592744 0.5938953 0.5847292 0.5580000 0.5878520 0.5511625
## Cluster 5 0.3759698 0.4383017 0.4045603 0.4528147 0.4781078 0.4778966 0.5037371
                 19754
                           19755
                                                          19758
##
                                     19756
                                               19757
                                                                    19759
                                                                              19760
## Cluster 1 0.7713846 0.7201432 0.6426963 0.6242149 0.5831273 0.5929151 0.5798223
## Cluster 2 0.5255982 0.4750323 0.5138358 0.4885689 0.4545337 0.4590029 0.4056246
## Cluster 3 0.8316624 0.8330128 0.7412511 0.6745745 0.6859050 0.6596128 0.6205319
## Cluster 4 0.5703718 0.5908628 0.5578628 0.5170397 0.5044152 0.5328448 0.5252419
## Cluster 5 0.5451595 0.5384138 0.4847198 0.4679052 0.4523319 0.4561724 0.4526509
##
                 19761
                           19762
                                     19763
                                               19764
                                                          19765
                                                                    19766
                                                                              19767
```

```
## Cluster 1 0.5839111 0.5794721 0.6378674 0.6834297 0.7118408 0.6625544 0.6724642
## Cluster 2 0.4639795 0.4462757 0.4379531 0.4986921 0.5480792 0.6406569 0.6759062
## Cluster 3 0.6188567 0.5959390 0.6188709 0.6269532 0.6101546 0.5702794 0.5931645
## Cluster 4 0.5106426 0.5298014 0.6072852 0.5608592 0.5268664 0.5462708 0.5929170
## Cluster 5 0.4691466 0.4686207 0.4662284 0.4720603 0.4753534 0.4841078 0.4570603
                 19768
                           19769
                                     19770
                                                          19772
##
                                               19771
                                                                    19773
## Cluster 1 0.6424483 0.6801751 0.7111419 0.7380915 0.6935597 0.6291897 0.5435305
## Cluster 2 0.6724839 0.6641848 0.7837419 0.8367331 0.8137243 0.7158416 0.6382815
## Cluster 3 0.6215149 0.6418482 0.6980582 0.7799206 0.7463929 0.7062624 0.6640326
## Cluster 4 0.5313105 0.5025343 0.5629386 0.6100578 0.5160505 0.4928412 0.4427617
  Cluster 5 0.5033664 0.5345991 0.5961121 0.6537802 0.6859138 0.7132716 0.7071509
                                                          19779
                           19776
                                     19777
                                               19778
                 19775
                                                                    19780
                                                                              19781
## Cluster 1 0.4591008 0.3709881 0.2905318 0.2389947 0.2112334 0.1836844 0.1716777
## Cluster 2 0.5500205 0.3960117 0.3171584 0.2585543 0.1995015 0.1760381 0.1708768
## Cluster 3 0.5970794 0.5216539 0.4160936 0.3467702 0.3000752 0.2701546 0.2304851
## Cluster 4 0.3721011 0.3210144 0.2607545 0.2261408 0.2149242 0.2078412 0.2201336
## Cluster 5 0.7107802 0.6969741 0.5793578 0.4816681 0.4108966 0.3350690 0.3119655
##
                 19782
                           19783
                                     19784
                                               19785
                                                          19786
                                                                    19787
                                                                              19788
## Cluster 1 0.1659019 0.1596631 0.1547732 0.1588780 0.1718767 0.1777573 0.1824284
## Cluster 2 0.1606745 0.1532845 0.1462610 0.1438475 0.1535513 0.1708006 0.1829941
## Cluster 3 0.2146298 0.2059759 0.2054794 0.2020071 0.2002057 0.1994610 0.2182170
## Cluster 4 0.1937004 0.1868592 0.2017978 0.2155632 0.2489495 0.2698809 0.3008989
## Cluster 5 0.2575690 0.2799440 0.2527155 0.2496681 0.2334267 0.2348103 0.2319181
                 19789
                           19790
                                     19791
                                               19792
                                                          19793
                                                                    19794
## Cluster 1 0.2011883 0.2241870 0.3344682 0.4070544 0.4930716 0.5165053 0.5867175
## Cluster 2 0.2263021 0.2988211 0.3761114 0.4350440 0.4522757 0.3507595 0.3262727
## Cluster 3 0.2478837 0.2682340 0.2756085 0.3417220 0.3642837 0.3972468 0.4336837
## Cluster 4 0.3653610 0.5366679 0.7208339 0.7556498 0.6800614 0.5398881 0.4755523
## Cluster 5 0.2787026 0.2661336 0.3348966 0.3715172 0.4117931 0.3773578 0.3495129
##
                 19796
                           19797
                                     19798
                                               19799
                                                          19800
                                                                    19801
                                                                              19802
## Cluster 1 0.5390225 0.5288966 0.5152281 0.4677003 0.4543249 0.4828594 0.5168024
## Cluster 2 0.2983666 0.2860645 0.2677185 0.2560997 0.2702815 0.2664927 0.2817155
## Cluster 3 0.4276043 0.4707546 0.4930142 0.4986369 0.5173645 0.5323986 0.5370723
## Cluster 4 0.4720325 0.4727329 0.4434513 0.4269495 0.4143538 0.4133430 0.4312419
## Cluster 5 0.3267629 0.3317069 0.3817888 0.4166595 0.3958534 0.3722931 0.4007457
                           19804
                                     19805
                                                          19807
                 19803
                                               19806
                                                                    19808
                                                                              19809
## Cluster 1 0.5313369 0.4758302 0.4649271 0.4726897 0.4707228 0.4687984 0.5430066
## Cluster 2 0.2633959 0.2849413 0.2877859 0.2638768 0.2664457 0.2532551 0.2863490
## Cluster 3 0.5523986 0.5199418 0.5015064 0.5193064 0.5542270 0.5493262 0.5996638
## Cluster 4 0.4392022 0.4135199 0.4051408 0.4197112 0.4543177 0.4687076 0.5721913
## Cluster 5 0.4185862 0.3548534 0.3498879 0.3356078 0.3098922 0.3250819 0.3403276
                 19810
                           19811
                                     19812
                                               19813
                                                          19814
                                                                    19815
                                                                              19816
## Cluster 1 0.6603515 0.7605557 0.8574337 0.8653647 0.7478117 0.7588952 0.7907931
## Cluster 2 0.2878710 0.3858152 0.4876950 0.6171848 0.6308152 0.6886334 0.7445220
## Cluster 3 0.6257660 0.6723078 0.6882227 0.7080170 0.6512667 0.5996936 0.6853461
## Cluster 4 0.6577906 0.7283394 0.7182094 0.6803827 0.5692708 0.5315126 0.5342455
## Cluster 5 0.3604052 0.4015086 0.4655862 0.5056724 0.5360560 0.5187845 0.4750000
                           19818
##
                 19817
                                     19819
                                               19820
                                                          19821
                                                                    19822
                                                                              19823
## Cluster 1 0.7604164 0.8177493 0.8713462 0.7615809 0.6984655 0.5629085 0.4602546
## Cluster 2 0.8066012 0.8257067 0.9059150 0.8505982 0.8737859 0.6975279 0.5680792
## Cluster 3 0.6860539 0.7388326 0.8157546 0.8534156 0.7783901 0.6976397 0.6540411
## Cluster 4 0.5045704 0.5400361 0.6081661 0.6170000 0.5670794 0.4880939 0.4244801
## Cluster 5 0.5069655 0.5783750 0.6548448 0.6721810 0.7135905 0.7033319 0.7388405
##
                 19824
                           19825
                                     19826
                                               19827
                                                          19828
                                                                    19829
                                                                              19830
```

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## Cluster 1 0.3614297 0.2806021 0.2264456 0.2034973 0.1701008 0.1720809 0.1604828
## Cluster 2 0.4066481 0.2882258 0.2447361 0.2139795 0.1695748 0.1660821 0.1609091
## Cluster 3 0.5593589 0.4403191 0.3439504 0.2788184 0.2552284 0.2225234 0.2132496
## Cluster 4 0.3395054 0.2846065 0.2505090 0.2389819 0.2174838 0.2119603 0.2017329
## Cluster 5 0.7267069 0.6257457 0.4711250 0.4180517 0.3335690 0.3015000 0.2809052
                           19832
                                     19833
                                               19834
                                                         19835
                                                                    19836
##
                 19831
## Cluster 1 0.1550146 0.1592613 0.1560782 0.1630371 0.1646512 0.1747520 0.1989721
## Cluster 2 0.1524751 0.1429736 0.1415191 0.1591232 0.1653783 0.1911261 0.2668182
## Cluster 3 0.2035816 0.1986723 0.1956652 0.1988085 0.2099943 0.2313716 0.2586326
## Cluster 4 0.1972310 0.1872635 0.2175199 0.2646173 0.2729170 0.3268412 0.3903069
  Cluster 5 0.2912759 0.2527198 0.2451897 0.2376940 0.2356897 0.2485647 0.2550819
                           19839
                 19838
                                     19840
                                               19841
                                                         19842
                                                                    19843
                                                                              19844
## Cluster 1 0.2376578 0.3922493 0.5274748 0.5646101 0.5331406 0.4897440 0.5199775
## Cluster 2 0.2951261 0.4254516 0.4652962 0.4296716 0.3178974 0.3140645 0.3026745
## Cluster 3 0.2722199 0.3127248 0.3753021 0.4225305 0.4055986 0.4128681 0.4644355
## Cluster 4 0.5879892 0.8067329 0.7853646 0.6129134 0.5083755 0.4403718 0.4169567
## Cluster 5 0.2684871 0.3539914 0.3370388 0.3784483 0.3621681 0.3399871 0.3590043
##
                 19845
                           19846
                                     19847
                                               19848
                                                         19849
                                                                    19850
                                                                              19851
## Cluster 1 0.4926207 0.4871737 0.4532772 0.4262149 0.4469788 0.4597997 0.5230080
## Cluster 2 0.2942933 0.2398768 0.2575279 0.2585015 0.2244692 0.2377683 0.2634897
## Cluster 3 0.5182355 0.4877489 0.5043801 0.4731560 0.5157674 0.5205390 0.5571135
## Cluster 4 0.3429892 0.3808375 0.3941408 0.3610433 0.4253430 0.4183394 0.4582383
## Cluster 5 0.3206983 0.3134871 0.3306164 0.3556164 0.3314052 0.3550172 0.3293362
                 19852
                           19853
                                     19854
                                               19855
                                                         19856
                                                                    19857
## Cluster 1 0.4644841 0.4436353 0.4160199 0.4090610 0.4517706 0.5044801 0.6417480
## Cluster 2 0.2519648 0.2473109 0.2457214 0.2447830 0.2785015 0.2914340 0.3345103
## Cluster 3 0.5056766 0.5126851 0.5258355 0.5278199 0.5496652 0.6140199 0.6703929
## Cluster 4 0.4200830 0.4199892 0.4211841 0.4669314 0.5125957 0.5408592 0.5905523
## Cluster 5 0.3167155 0.3046207 0.3004698 0.3478750 0.3407974 0.3365948 0.3644526
                 19859
                           19860
                                     19861
                                               19862
                                                         19863
                                                                    19864
                                                                              19865
## Cluster 1 0.7771512 0.8975809 0.8978369 0.7514576 0.7439297 0.7371565 0.7991552
## Cluster 2 0.4044985 0.4815572 0.5511994 0.6344428 0.7163343 0.7484897 0.7678065
## Cluster 3 0.6482525 0.6730794 0.7195887 0.6805745 0.6923220 0.6900723 0.7504624
## Cluster 4 0.6830325 0.6840036 0.5972094 0.5393213 0.6120289 0.6264043 0.5715957
## Cluster 5 0.3895819 0.4324181 0.4783879 0.5397931 0.5196164 0.5347974 0.4966207
                           19867
                                     19868
                                                         19870
                 19866
                                               19869
                                                                    19871
                                                                              19872
## Cluster 1 0.8113276 0.8576631 0.7711207 0.6831976 0.5520265 0.4624231 0.3598607
## Cluster 2 0.8854164 0.9821320 0.8939326 0.7930557 0.6399531 0.5613021 0.4035103
## Cluster 3 0.8180496 0.8986326 0.8413702 0.7646482 0.7188298 0.6293135 0.5413234
## Cluster 4 0.6275632 0.6651625 0.6289747 0.4935054 0.4654874 0.4125018 0.3663285
## Cluster 5 0.5879741 0.6906681 0.7559138 0.7659181 0.7286164 0.6835905 0.6473750
                 19873
                           19874
                                     19875
                                               19876
                                                         19877
                                                                    19878
                                                                              19879
## Cluster 1 0.2798554 0.2286379 0.1949788 0.1786379 0.1662984 0.1637082 0.1592215
## Cluster 2 0.2904223 0.2344223 0.1943666 0.1677009 0.1588240 0.1557566 0.1470411
## Cluster 3 0.4360993 0.3658525 0.2872752 0.2563504 0.2285730 0.2153418 0.2181461
## Cluster 4 0.2809819 0.2612347 0.2291227 0.2167365 0.2238628 0.1904910 0.1896209
## Cluster 5 0.5517759 0.4899655 0.4108966 0.3361681 0.2925000 0.2633534 0.2700388
                 19880
                           19881
                                     19882
                                               19883
                                                          19884
##
                                                                    19885
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## Cluster 1 0.1612891 0.1644894 0.1710782 0.1679390 0.1880305 0.1991207 0.2364337
## Cluster 2 0.1469971 0.1495836 0.1524985 0.1769032 0.2193050 0.2996100 0.2830528
## Cluster 3 0.2021035 0.1967277 0.1916709 0.2019745 0.2128667 0.2584567 0.2886723
## Cluster 4 0.1886570 0.2169675 0.2526318 0.2676209 0.3102383 0.4212852 0.6213935
## Cluster 5 0.2725991 0.2497284 0.2476207 0.2388448 0.2436595 0.2798060 0.2973922
##
                 19887
                           19888
                                     19889
                                               19890
                                                          19891
                                                                    19892
                                                                              19893
```

```
## Cluster 1 0.4218103 0.5312135 0.5428276 0.4919350 0.4814655 0.4759947 0.4890438
## Cluster 2 0.4226745 0.4564340 0.4582757 0.3539179 0.3090997 0.2674487 0.2956862
## Cluster 3 0.3299433 0.3901929 0.4603333 0.4177418 0.4416270 0.4543943 0.4294199
## Cluster 4 0.8882960 0.8438700 0.6509675 0.5059531 0.4491625 0.4110722 0.4047437
## Cluster 5 0.3847026 0.4285862 0.4001078 0.3465776 0.3623664 0.3759914 0.2979871
                 19894
                           19895
                                     19896
                                                         19898
                                                                    19899
##
                                               19897
## Cluster 1 0.4347387 0.4363939 0.4505053 0.4307255 0.4668886 0.4873064 0.4714801
## Cluster 2 0.2707625 0.2569883 0.2474809 0.2615367 0.2757683 0.2761789 0.2856305
## Cluster 3 0.4310780 0.4831191 0.4554326 0.5113957 0.5302624 0.5428170 0.5036113
## Cluster 4 0.3966498 0.4139856 0.4252455 0.3901011 0.3814440 0.3857040 0.3835560
  Cluster 5 0.3028879 0.2845733 0.3312500 0.3223664 0.3243276 0.3437845 0.3688147
                           19902
                                     19903
                 19901
                                               19904
                                                         19905
                                                                    19906
                                                                              19907
## Cluster 1 0.4434854 0.4204416 0.4541180 0.4758090 0.5308541 0.6388276 0.7393660
## Cluster 2 0.2836100 0.3017302 0.2950293 0.3025601 0.3074956 0.3585924 0.4383079
## Cluster 3 0.4696340 0.4568879 0.4938440 0.5248681 0.5788780 0.6584681 0.6852610
## Cluster 4 0.4213863 0.4619567 0.3961408 0.4378520 0.5187220 0.6178700 0.6983682
## Cluster 5 0.3557974 0.3497284 0.3786681 0.3951853 0.4387457 0.4022672 0.4013534
##
                 19908
                           19909
                                     19910
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                                                         19912
                                                                    19913
                                                                              19914
## Cluster 1 0.8404920 0.8267162 0.7120836 0.7021008 0.6690968 0.7388090 0.8227215
## Cluster 2 0.5119736 0.5600557 0.5989208 0.6859120 0.6654428 0.7828798 0.8899853
## Cluster 3 0.6631348 0.6345858 0.6291064 0.6315589 0.6206071 0.6973574 0.7690582
## Cluster 4 0.6505740 0.5609639 0.5032816 0.5344874 0.5433141 0.5158881 0.5926498
## Cluster 5 0.4428966 0.4888233 0.4453190 0.4501509 0.4511121 0.5142500 0.6113362
                 19915
                           19916
                                     19917
                                               19918
                                                          19919
                                                                    19920
## Cluster 1 0.8136684 0.7452878 0.6432706 0.5431963 0.4707759 0.3798276 0.2966034
## Cluster 2 0.8770176 0.8767537 0.8361466 0.6868534 0.5615044 0.4510557 0.3126012
## Cluster 3 0.8330014 0.7856397 0.7346326 0.6696014 0.6072326 0.5172752 0.4286936
## Cluster 4 0.6077509 0.6250614 0.5986354 0.4822780 0.4073213 0.3585018 0.2680397
## Cluster 5 0.7316638 0.7141466 0.7445560 0.7259009 0.7375043 0.6867802 0.5676164
                 19922
                           19923
                                     19924
                                               19925
                                                         19926
                                                                    19927
                                                                              19928
## Cluster 1 0.2227122 0.1924775 0.1766658 0.1668846 0.1686631 0.1649814 0.1627162
## Cluster 2 0.2467566 0.2083636 0.1880528 0.1683196 0.1626158 0.1642434 0.1509208
## Cluster 3 0.3486809 0.2760298 0.2517589 0.2242199 0.2151262 0.2139305 0.1996440
## Cluster 4 0.2440722 0.2300289 0.2230144 0.2124549 0.1949097 0.1911300 0.2044152
## Cluster 5 0.4147284 0.3664914 0.3160129 0.3075517 0.2733491 0.2811552 0.2575690
                           19930
                                     19931
                                               19932
                                                         19933
                 19929
                                                                    19934
                                                                              19935
## Cluster 1 0.1650782 0.1664085 0.1676207 0.1824151 0.2124284 0.2767321 0.4180875
## Cluster 2 0.1503284 0.1557654 0.1911349 0.2052053 0.2792669 0.3344868 0.4547742
## Cluster 3 0.1991858 0.1964667 0.2045149 0.2223050 0.2615631 0.2916553 0.3370128
## Cluster 4 0.2182491 0.2443791 0.2676173 0.3206390 0.4226101 0.6421877 0.8158375
## Cluster 5 0.2428319 0.2306983 0.2532802 0.2400345 0.2803793 0.2746293 0.3530431
                 19936
                           19937
                                     19938
                                               19939
                                                         19940
                                                                    19941
                                                                              19942
## Cluster 1 0.5785504 0.5639509 0.5215186 0.5160279 0.5005915 0.4912798 0.4340133
## Cluster 2 0.4937742 0.4219912 0.3236804 0.3223314 0.2835396 0.2674956 0.2647419
## Cluster 3 0.4184057 0.4412255 0.4251078 0.4256851 0.4567674 0.4457858 0.4467929
## Cluster 4 0.8508881 0.6673791 0.5493032 0.4846209 0.4063863 0.3627978 0.3751516
## Cluster 5 0.4250776 0.3371078 0.3744655 0.3359353 0.3299526 0.3335690 0.3445647
                           19944
##
                 19943
                                     19945
                                               19946
                                                          19947
                                                                    19948
                                                                              19949
## Cluster 1 0.4029098 0.3871618 0.3920782 0.4558607 0.4340504 0.4019218 0.4064576
## Cluster 2 0.2440381 0.2460293 0.2269648 0.2539091 0.2681789 0.2793226 0.2418651
## Cluster 3 0.4385149 0.4909461 0.4767121 0.4748241 0.4547546 0.4919645 0.4844525
## Cluster 4 0.4198989 0.3611336 0.3579386 0.3668881 0.3544621 0.3577942 0.3996859
## Cluster 5 0.3405819 0.3206724 0.2886940 0.3358621 0.3451767 0.2869698 0.2998707
##
                 19950
                           19951
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                                                                    19955
                                                                              19956
```

```
## Cluster 1 0.4312812 0.4273011 0.4403435 0.5072560 0.6052387 0.7549642 0.8536737
## Cluster 2 0.2703548 0.2894135 0.2811730 0.3315894 0.2966833 0.4149003 0.4804604
## Cluster 3 0.4667489 0.4607830 0.5578213 0.5971447 0.6756780 0.6486553 0.7044567
## Cluster 4 0.4050361 0.4068664 0.4895668 0.5413971 0.5756931 0.6698159 0.6550614
## Cluster 5 0.3038448 0.3068017 0.3265517 0.3401207 0.3257802 0.3511897 0.3886078
                 19957
                           19958
                                     19959
                                               19960
                                                         19961
                                                                    19962
##
## Cluster 1 0.7670517 0.6762719 0.7106618 0.7327188 0.7499218 0.7584615 0.8599271
## Cluster 2 0.5359150 0.5902757 0.6864780 0.8274839 0.7858358 0.8526070 0.8769120
## Cluster 3 0.6303220 0.5983716 0.6019007 0.6273475 0.6681404 0.7981603 0.8703901
## Cluster 4 0.5935668 0.5455343 0.5634152 0.6134657 0.5281119 0.6166354 0.6259314
  Cluster 5 0.4430603 0.4539353 0.5004009 0.5600647 0.5162500 0.5932845 0.6632198
                           19965
                                     19966
                 19964
                                               19967
                                                         19968
                                                                    19969
                                                                              19970
## Cluster 1 0.7753899 0.6724297 0.5535000 0.4598090 0.3486658 0.2706180 0.2271976
## Cluster 2 0.8284604 0.7636422 0.6594604 0.5500088 0.4105689 0.2972287 0.2393695
## Cluster 3 0.8143291 0.7529801 0.6944638 0.6287773 0.5409688 0.4158326 0.3570383
## Cluster 4 0.5356498 0.4907401 0.4520830 0.4292744 0.3328628 0.2667329 0.2670469
## Cluster 5 0.6980776 0.6375819 0.6843793 0.6464698 0.5970948 0.5101552 0.4710948
##
                 19971
                           19972
                                     19973
                                               19974
                                                         19975
                                                                    19976
                                                                              19977
## Cluster 1 0.1876578 0.1723276 0.1697135 0.1651074 0.1621538 0.1537666 0.1621273
## Cluster 2 0.2099238 0.1980059 0.1740205 0.1639941 0.1471730 0.1505630 0.1487361
## Cluster 3 0.3051745 0.2591787 0.2319759 0.2162213 0.2203362 0.2052582 0.2026298
## Cluster 4 0.2422455 0.2325451 0.2105740 0.2011877 0.1890433 0.2104404 0.2263971
## Cluster 5 0.4153750 0.3310991 0.3223362 0.2579828 0.2508922 0.2558448 0.2303103
                           19979
                 19978
                                     19980
                                               19981
                                                         19982
                                                                    19983
## Cluster 1 0.1668276 0.1780623 0.1827944 0.1992997 0.2538833 0.3784682 0.5665385
## Cluster 2 0.1556100 0.1694985 0.2144428 0.2998123 0.3001466 0.3769413 0.4583021
## Cluster 3 0.1906426 0.2032553 0.2260610 0.2687447 0.2865447 0.3300028 0.4009390
## Cluster 4 0.2569856 0.2601480 0.3545307 0.4250505 0.5342238 0.8136606 0.8488628
## Cluster 5 0.2270819 0.2472112 0.2242974 0.2619871 0.2786422 0.3217500 0.3991164
##
                 19985
                           19986
                                     19987
                                               19988
                                                         19989
                                                                    19990
                                                                              19991
## Cluster 1 0.5818554 0.5158117 0.5277188 0.5006976 0.4678263 0.4328342 0.4514867
## Cluster 2 0.4956012 0.4005367 0.3411261 0.3259707 0.2781173 0.2807419 0.2693842
## Cluster 3 0.4605617 0.4373872 0.4563830 0.4588766 0.4615759 0.4626780 0.4411589
## Cluster 4 0.6634477 0.6092671 0.4687184 0.3948195 0.3973105 0.4153357 0.3837076
  Cluster 5 0.4241552 0.4111767 0.3653060 0.3894052 0.3554483 0.3533966 0.3349914
                                     19994
                                                         19996
                 19992
                           19993
                                               19995
                                                                    19997
                                                                              19998
## Cluster 1 0.4118952 0.4155942 0.4278554 0.4707082 0.4335809 0.4418607 0.4354456
## Cluster 2 0.2329941 0.2505689 0.2786364 0.2786100 0.2696012 0.2811085 0.2674164
## Cluster 3 0.4295716 0.4455305 0.4897943 0.5242411 0.4937546 0.4859702 0.4619418
## Cluster 4 0.3471336 0.3455162 0.3817292 0.3602888 0.3580578 0.3819675 0.3501552
## Cluster 5 0.3363750 0.3474914 0.3294957 0.3372500 0.3155043 0.3054310 0.3115043
                 19999
                           20000
                                     20001
                                               20002
                                                         20003
                                                                    20004
                                                                              20005
## Cluster 1 0.4468289 0.4909695 0.5221419 0.6532109 0.7258634 0.8097984 0.8298130
## Cluster 2 0.2673314 0.3242727 0.3393636 0.3860117 0.4158710 0.5262346 0.5625513
## Cluster 3 0.4953801 0.5564695 0.6136227 0.6731234 0.6377078 0.6284241 0.6333092
## Cluster 4 0.3934513 0.4644693 0.5004657 0.5378628 0.6114332 0.6110108 0.5348953
## Cluster 5 0.3128405 0.3470862 0.3326810 0.3673362 0.4063147 0.4228060 0.4490216
                           20007
                                     20008
                                               20009
##
                 20006
                                                         20010
                                                                    20011
                                                                              20012
## Cluster 1 0.6942586 0.6935358 0.7077626 0.7386061 0.8318806 0.7985080 0.7399523
## Cluster 2 0.6000850 0.6581760 0.6512287 0.6628152 0.7659707 0.8436188 0.7574809
## Cluster 3 0.6327617 0.6090312 0.6405376 0.6699262 0.7398979 0.7854610 0.7081603
## Cluster 4 0.5240217 0.5429928 0.6145596 0.5829097 0.5815162 0.6359675 0.5445884
## Cluster 5 0.4931466 0.5193190 0.4731552 0.4553362 0.6063836 0.6990043 0.6199483
##
                 20013
                           20014
                                     20015
                                               20016
                                                         20017
                                                                    20018
                                                                              20019
```

```
## Cluster 1 0.6793342 0.5822414 0.5238780 0.4428103 0.3540027 0.2799443 0.2396061
## Cluster 2 0.7377537 0.6246422 0.5296774 0.4289208 0.3629179 0.2791261 0.2459853
## Cluster 3 0.7129404 0.6927064 0.6124794 0.6062993 0.5091106 0.4257305 0.3404865
## Cluster 4 0.5153574 0.4482238 0.4027545 0.3536137 0.3150361 0.2613249 0.2467726
## Cluster 5 0.6101810 0.5957155 0.6714440 0.6484526 0.5650560 0.5070388 0.4608707
                 20020
                           20021
                                     20022
                                               20023
                                                          20024
                                                                    20025
##
## Cluster 1 0.2074682 0.1863886 0.1809019 0.1793475 0.1709748 0.1706565 0.1760212
## Cluster 2 0.1987361 0.1771496 0.1620293 0.1587713 0.1550205 0.1527419 0.1624545
## Cluster 3 0.3102454 0.2714851 0.2563348 0.2354028 0.2201220 0.2190553 0.2221050
## Cluster 4 0.2240253 0.2500072 0.2105235 0.2168592 0.2140072 0.2280108 0.2639025
  Cluster 5 0.3663879 0.3383276 0.3145216 0.2956638 0.2743750 0.2649569 0.2457371
                           20028
                                     20029
                                               20030
                                                          20031
                 20027
                                                                    20032
                                                                              20033
## Cluster 1 0.1869204 0.1882016 0.1981366 0.2026777 0.2652414 0.3272294 0.4228435
## Cluster 2 0.1834018 0.1907507 0.2040499 0.2189062 0.2483079 0.3195513 0.3518739
## Cluster 3 0.2171362 0.2192255 0.2546752 0.2590681 0.2308525 0.2625872 0.3163773
## Cluster 4 0.2754982 0.3147798 0.3862599 0.4433069 0.5222419 0.6168556 0.5344838
## Cluster 5 0.2560862 0.2345517 0.2525431 0.2566638 0.2711810 0.2854828 0.3156552
##
                 20034
                           20035
                                     20036
                                               20037
                                                          20038
                                                                    20039
                                                                              20040
## Cluster 1 0.4936737 0.6125650 0.6280385 0.6434894 0.6883276 0.6996021 0.6833634
## Cluster 2 0.3557155 0.4390557 0.4544047 0.4865894 0.4874194 0.5249648 0.5028563
## Cluster 3 0.3874879 0.4265376 0.4995830 0.5404270 0.5742596 0.6235816 0.6181887
## Cluster 4 0.5945560 0.6109422 0.5897437 0.5383755 0.5424585 0.4751733 0.4624477
## Cluster 5 0.3313966 0.3574698 0.3984871 0.4423448 0.4748621 0.4731595 0.5004612
                 20041
                           20042
                                     20043
                                               20044
                                                          20045
                                                                    20046
## Cluster 1 0.6675451 0.6868528 0.6706088 0.6256326 0.5997586 0.5628899 0.5615915
## Cluster 2 0.4918592 0.4387302 0.4486452 0.4395367 0.4418944 0.4486862 0.4561437
## Cluster 3 0.6700440 0.6736794 0.6467206 0.6515021 0.5959050 0.5587362 0.5746950
## Cluster 4 0.4813249 0.4768339 0.4788700 0.4583935 0.4165126 0.4352708 0.5656715
## Cluster 5 0.5385991 0.4981422 0.4643836 0.5144353 0.4743793 0.4361681 0.3930172
##
                 20048
                           20049
                                     20050
                                               20051
                                                          20052
                                                                    20053
                                                                              20054
## Cluster 1 0.5656512 0.5974204 0.6124191 0.7068422 0.8116286 0.7890212 0.8160915
## Cluster 2 0.4670000 0.4344340 0.4433167 0.5062023 0.5496891 0.6119560 0.6621818
## Cluster 3 0.5566823 0.5931929 0.6521007 0.6811617 0.6766638 0.7119234 0.7017277
## Cluster 4 0.5426715 0.5642888 0.5120975 0.5775812 0.6518664 0.6951733 0.6225343
## Cluster 5 0.4035216 0.4640905 0.4472371 0.4131034 0.4297759 0.5134828 0.5012284
                 20055
                           20056
                                     20057
                                               20058
                                                          20059
                                                                    20060
                                                                              20061
## Cluster 1 0.7775849 0.7562440 0.7024775 0.7076379 0.7022281 0.6441167 0.6329642
## Cluster 2 0.7645894 0.7357801 0.7066276 0.7687097 0.7940176 0.6962698 0.6330880
## Cluster 3 0.7005333 0.7124695 0.6906496 0.7670624 0.7738851 0.7585305 0.6570723
## Cluster 4 0.5702888 0.5548881 0.5354585 0.5636968 0.5173610 0.4910939 0.4849061
## Cluster 5 0.4917672 0.5029526 0.4977241 0.5838491 0.6678190 0.6505345 0.6493491
                 20062
                           20063
                                     20064
                                               20065
                                                          20066
                                                                    20067
                                                                              20068
## Cluster 1 0.5804536 0.4908926 0.4137374 0.3468276 0.2788554 0.2303515 0.2148355
## Cluster 2 0.5789824 0.5651789 0.4575484 0.3831085 0.3152258 0.2713812 0.2493842
## Cluster 3 0.6389106 0.6179220 0.5805078 0.4760638 0.4002794 0.3560936 0.3229773
## Cluster 4 0.4391047 0.4023466 0.3444477 0.2953610 0.2670794 0.2421155 0.2210144
## Cluster 5 0.6007629 0.6273448 0.6000302 0.5375776 0.4754784 0.4203491 0.3707845
                 20069
                           20070
                                     20071
                                               20072
                                                          20073
##
                                                                    20074
                                                                              20075
## Cluster 1 0.1960385 0.1831499 0.1773183 0.1683475 0.1706724 0.1682268 0.1686698
## Cluster 2 0.2258358 0.2134311 0.1930499 0.1778358 0.1726129 0.1805396 0.1885894
## Cluster 3 0.2871759 0.2636411 0.2474326 0.2322837 0.2225149 0.2186227 0.2085291
## Cluster 4 0.2266606 0.2327798 0.2049964 0.2032022 0.2448989 0.2597220 0.2725523
## Cluster 5 0.3347155 0.3184440 0.3154741 0.3043190 0.2939009 0.2610819 0.2406897
##
                 20076
                           20077
                                     20078
                                               20079
                                                          20080
                                                                    20081
                                                                              20082
```

```
## Cluster 1 0.1715570 0.1833024 0.1934204 0.2263687 0.2750557 0.3287082 0.4213528
## Cluster 2 0.1924282 0.2117566 0.2181965 0.2227273 0.2620352 0.3233372 0.3388827
## Cluster 3 0.2203730 0.2500014 0.2345277 0.2261730 0.2508241 0.2749972 0.3200908
## Cluster 4 0.3372202 0.3562094 0.4162852 0.4474188 0.4647148 0.5342599 0.5409314
## Cluster 5 0.2414741 0.2564224 0.2652069 0.2549224 0.2966250 0.3375690 0.3895776
                 20083
                           20084
                                     20085
                                               20086
                                                         20087
                                                                    20088
##
                                                                              20089
## Cluster 1 0.5196313 0.6402029 0.6943660 0.6957944 0.7105279 0.7733475 0.7593448
## Cluster 2 0.3521789 0.3596158 0.4264721 0.4996804 0.5337331 0.5343695 0.5472199
## Cluster 3 0.4122383 0.5039163 0.5661248 0.6404539 0.6785149 0.6958482 0.7919177
## Cluster 4 0.5573574 0.6132455 0.5374946 0.5776209 0.5617942 0.6195162 0.6078592
  Cluster 5 0.4033319 0.3908922 0.5015129 0.4356078 0.4712500 0.4575259 0.4639569
                           20091
                                     20092
                                               20093
                 20090
                                                         20094
                                                                    20095
                                                                              20096
## Cluster 1 0.8373422 0.8216021 0.7707971 0.7538024 0.6982069 0.7099708 0.6308462
## Cluster 2 0.5995044 0.5346481 0.5754839 0.5749736 0.5707009 0.5544633 0.5180176
## Cluster 3 0.8192057 0.7785872 0.7915177 0.7556539 0.7127064 0.6828085 0.6784936
## Cluster 4 0.6492671 0.6387004 0.5572310 0.5376643 0.5396498 0.5566245 0.5822094
## Cluster 5 0.4753060 0.4566121 0.4475733 0.4156638 0.4401336 0.4440948 0.4759440
##
                 20097
                           20098
                                     20099
                                               20100
                                                         20101
                                                                    20102
                                                                              20103
## Cluster 1 0.6532361 0.6464629 0.7267268 0.8363117 0.8169655 0.7995411 0.7860902
## Cluster 2 0.5241789 0.5185132 0.5708622 0.7200528 0.7335601 0.8189179 0.8401202
## Cluster 3 0.6824652 0.6437943 0.6381532 0.7101887 0.7310355 0.7008695 0.7322482
## Cluster 4 0.6202094 0.6470975 0.6412563 0.7022058 0.6680144 0.6788195 0.7031227
## Cluster 5 0.4656466 0.4354957 0.4643448 0.5785431 0.5413233 0.5305603 0.5344095
                 20104
                           20105
                                     20106
                                               20107
                                                         20108
                                                                    20109
## Cluster 1 0.7979615 0.7941976 0.8096724 0.7635279 0.6734536 0.5973395 0.5315690
## Cluster 2 0.8353900 0.8530323 0.8800499 0.8716540 0.7334106 0.7353079 0.6381760
## Cluster 3 0.7509759 0.7820652 0.8168667 0.8483901 0.7927447 0.7196539 0.6575475
## Cluster 4 0.6710253 0.6261841 0.5663538 0.6068845 0.5524874 0.4653213 0.4388628
## Cluster 5 0.5730043 0.6229914 0.7202155 0.7258664 0.7456853 0.7847974 0.7106379
                 20111
                           20112
                                     20113
                                               20114
                                                         20115
                                                                    20116
                                                                              20117
## Cluster 1 0.4609218 0.3679111 0.2832560 0.2296512 0.1943117 0.1846048 0.1753647
## Cluster 2 0.5159150 0.4136510 0.3390587 0.2615484 0.2163460 0.1969062 0.1735279
## Cluster 3 0.6099348 0.5424950 0.4234057 0.3444113 0.2978085 0.2482426 0.2232043
## Cluster 4 0.3698087 0.3052816 0.2701661 0.2316390 0.2098520 0.2127004 0.2004296
## Cluster 5 0.6962328 0.6791853 0.5643836 0.4542845 0.3518578 0.3271681 0.3238448
                                               20121
                           20119
                                     20120
                                                         20122
                 20118
                                                                    20123
## Cluster 1 0.1748528 0.1677467 0.1647480 0.1649801 0.1716472 0.1774615 0.1795968
## Cluster 2 0.1706979 0.1522757 0.1531232 0.1503079 0.1672845 0.1809765 0.2174868
## Cluster 3 0.2078340 0.2051007 0.2012454 0.1945121 0.1934454 0.1990553 0.2100511
## Cluster 4 0.2080542 0.2047220 0.2072708 0.2293971 0.3023827 0.3093935 0.3778845
## Cluster 5 0.2803147 0.2687414 0.2624957 0.2463578 0.2302155 0.2242759 0.2227500
                 20125
                           20126
                                     20127
                                               20128
                                                         20129
                                                                    20130
                                                                              20131
## Cluster 1 0.1891127 0.2515676 0.3624509 0.5530013 0.5561830 0.5258501 0.5028912
## Cluster 2 0.2635220 0.3239883 0.4151496 0.4708240 0.4420088 0.3877478 0.2893724
## Cluster 3 0.2417092 0.2896979 0.3442723 0.4286936 0.4413248 0.4605220 0.4254071
## Cluster 4 0.4257617 0.6021444 0.7891588 0.8299278 0.6194043 0.5529603 0.4752310
## Cluster 5 0.2687974 0.2759784 0.3119569 0.4353060 0.4050302 0.3632586 0.3599310
                           20133
                                               20135
##
                 20132
                                     20134
                                                         20136
                                                                    20137
                                                                              20138
## Cluster 1 0.5425159 0.5126538 0.4998183 0.4723820 0.4845663 0.5093475 0.5518634
## Cluster 2 0.2631173 0.2637302 0.2538006 0.2672698 0.2601202 0.2780616 0.2642727
## Cluster 3 0.4171787 0.4283106 0.4630156 0.4681277 0.4860241 0.4673660 0.4900681
## Cluster 4 0.4947545 0.3998484 0.4037112 0.3650758 0.3897762 0.4126787 0.4280614
## Cluster 5 0.3403491 0.3687026 0.3668879 0.3646681 0.3593836 0.3838664 0.3959871
##
                 20139
                           20140
                                     20141
                                               20142
                                                         20143
                                                                    20144
                                                                              20145
```

```
## Cluster 1 0.5277825 0.4896419 0.4804947 0.5093156 0.5332838 0.5565451 0.6578939
## Cluster 2 0.3134135 0.3113812 0.3258182 0.3027067 0.3042786 0.3075132 0.3589501
## Cluster 3 0.5635035 0.5676482 0.5731688 0.5537206 0.6134823 0.6555106 0.6840113
## Cluster 4 0.4675235 0.4201913 0.4448484 0.4761552 0.4658664 0.5002347 0.6282455
## Cluster 5 0.4285000 0.3851422 0.3599267 0.3158534 0.3661897 0.3799397 0.4018879
                 20146
                           20147
                                     20148
                                               20149
                                                         20150
##
                                                                    20151
## Cluster 1 0.7795981 0.8903223 1.0000836 0.9003223 0.8475106 0.7941883 0.7830623
## Cluster 2 0.4316217 0.4899883 0.6455806 0.7629971 0.8023460 0.8633519 0.8176305
## Cluster 3 0.7649348 0.7887759 0.8211291 0.7587121 0.7161688 0.7834199 0.7922255
## Cluster 4 0.7013718 0.7674874 0.6662491 0.6562635 0.6151661 0.6517220 0.6388087
  Cluster 5 0.4470000 0.4730862 0.5312198 0.6271164 0.6004440 0.5345043 0.5887672
                           20154
                                     20155
                                               20156
                 20153
                                                         20157
                                                                    20158
                                                                              20159
## Cluster 1 0.8189523 0.8398806 0.7985146 0.7356088 0.622666 0.5247308 0.4513846
## Cluster 2 0.8799003 0.9294047 0.9128798 0.8302434 0.7845103 0.6632903 0.5159589
## Cluster 3 0.8075816 0.8340085 0.8551248 0.8015092 0.7680766 0.6997759 0.6215972
## Cluster 4 0.5756968 0.6249278 0.6321155 0.6069061 0.5438375 0.4547870 0.3962744
## Cluster 5 0.6257629 0.6797069 0.7154957 0.7149526 0.6787672 0.6753017 0.7216336
##
                 20160
                           20161
                                     20162
                                               20163
                                                         20164
                                                                    20165
                                                                              20166
## Cluster 1 0.3567228 0.2786578 0.2375703 0.1949973 0.1738170 0.1704297 0.1708422
## Cluster 2 0.3837038 0.2954545 0.2267097 0.1964692 0.1685279 0.1647449 0.1553109
## Cluster 3 0.5286965 0.4250241 0.3537617 0.2887206 0.2561645 0.2325773 0.2216085
## Cluster 4 0.3289892 0.2925776 0.2462455 0.2166426 0.2234296 0.2139892 0.2146643
## Cluster 5 0.6641293 0.5635086 0.4648836 0.3672198 0.3277198 0.3004267 0.2755733
                 20167
                           20168
                                     20169
                                               20170
                                                         20171
                                                                    20172
## Cluster 1 0.1687149 0.1595305 0.1614934 0.1619907 0.1722546 0.1859072 0.1999589
## Cluster 2 0.1472757 0.1501613 0.1466188 0.1632669 0.1618710 0.1988622 0.2810117
## Cluster 3 0.2133957 0.2084128 0.2001872 0.2049121 0.2059177 0.2231489 0.2684397
## Cluster 4 0.2124874 0.2005776 0.2273899 0.2769458 0.2602202 0.3057473 0.4240722
## Cluster 5 0.2750129 0.2476897 0.2401078 0.2488017 0.2529483 0.2495991 0.2762931
##
                 20174
                           20175
                                     20176
                                               20177
                                                         20178
                                                                    20179
                                                                              20180
## Cluster 1 0.2422347 0.3923117 0.5636923 0.5410782 0.5453753 0.5249735 0.5416711
## Cluster 2 0.3104868 0.4995132 0.4921730 0.4645132 0.3442170 0.3087801 0.2938768
## Cluster 3 0.2874979 0.3556043 0.4229915 0.4561348 0.4816766 0.4320170 0.4490567
## Cluster 4 0.5993141 0.7844549 0.7402563 0.6476029 0.5819242 0.4967617 0.4560903
## Cluster 5 0.3008879 0.3662629 0.4086379 0.4003793 0.3642845 0.3772414 0.4120345
                 20181
                           20182
                                     20183
                                               20184
                                                         20185
                                                                    20186
                                                                              20187
## Cluster 1 0.5370809 0.4694403 0.4597188 0.4462772 0.4572241 0.4812918 0.4918806
## Cluster 2 0.2567185 0.2578915 0.2419501 0.2832082 0.2703109 0.2805220 0.2838534
## Cluster 3 0.4645305 0.4582057 0.5041688 0.5104383 0.5196043 0.5426553 0.5958128
## Cluster 4 0.4191191 0.4043646 0.3749567 0.3688773 0.3821191 0.4395415 0.3902419
## Cluster 5 0.3719957 0.3908793 0.3591164 0.3529310 0.3346681 0.3680043 0.3513793
                 20188
                           20189
                                     20190
                                               20191
                                                         20192
                                                                    20193
                                                                              20194
## Cluster 1 0.4766671 0.4257984 0.4527454 0.4755252 0.5155822 0.5665411 0.6922984
## Cluster 2 0.2490088 0.2683548 0.2495836 0.2831085 0.2975748 0.3127566 0.3417067
## Cluster 3 0.5467887 0.5392156 0.5316922 0.5164766 0.5970738 0.6659716 0.7208369
## Cluster 4 0.4051408 0.4235199 0.4215415 0.4223466 0.4395957 0.5373069 0.5444946
## Cluster 5 0.3570733 0.3205905 0.3139138 0.3501983 0.3731509 0.3605733 0.4001034
                           20196
                                                                    20200
##
                 20195
                                     20197
                                               20198
                                                         20199
                                                                              20201
## Cluster 1 0.8125769 0.8851764 0.9032109 0.7788236 0.7946552 0.7585955 0.8265995
## Cluster 2 0.5092522 0.5477977 0.5657449 0.7020499 0.7946422 0.7837507 0.8369384
## Cluster 3 0.6933163 0.7381319 0.6768028 0.6912284 0.7315489 0.7026596 0.7962326
## Cluster 4 0.6372671 0.6509097 0.6329711 0.5996787 0.6042635 0.6033899 0.5646859
## Cluster 5 0.4097888 0.4663103 0.5142155 0.4967328 0.5602371 0.5780647 0.5838793
##
                 20202
                           20203
                                     20204
                                               20205
                                                         20206
                                                                    20207
                                                                              20208
```

```
## Cluster 1 0.8475663 0.8081645 0.7913289 0.6930225 0.5901618 0.4645225 0.3777706
## Cluster 2 0.9027155 0.9264633 0.8485073 0.8155308 0.6915865 0.5304663 0.3603636
## Cluster 3 0.8469319 0.8293489 0.7885660 0.7523957 0.6866525 0.6420014 0.5340539
## Cluster 4 0.6162780 0.6001949 0.5917653 0.5757329 0.4833646 0.4077401 0.3571336
## Cluster 5 0.6652155 0.6841810 0.7084871 0.6976595 0.6900345 0.7325948 0.6573319
                 20209
                           20210
                                     20211
                                               20212
                                                          20213
##
                                                                    20214
## Cluster 1 0.2730491 0.2251061 0.1923249 0.1686114 0.1705796 0.1691008 0.1642653
## Cluster 2 0.2910850 0.2392522 0.1967830 0.1841290 0.1668974 0.1659677 0.1523167
## Cluster 3 0.4330340 0.3402936 0.2923050 0.2568908 0.2191901 0.2080993 0.2056298
## Cluster 4 0.2793032 0.2601661 0.2280939 0.2063285 0.2087365 0.2076318 0.1879314
  Cluster 5 0.5471767 0.4317716 0.3680948 0.3185948 0.2812543 0.2697069 0.2716940
                 20216
                           20217
                                               20219
                                     20218
                                                          20220
                                                                    20221
                                                                              20222
## Cluster 1 0.1580637 0.1645225 0.1698475 0.1782639 0.1917268 0.1989363 0.2561724
## Cluster 2 0.1415425 0.1392170 0.1527390 0.1682111 0.1992111 0.2577801 0.2997390
## Cluster 3 0.2081333 0.2036454 0.2006766 0.2060780 0.2182199 0.2510199 0.2810128
## Cluster 4 0.1955812 0.2249134 0.2474946 0.2512347 0.3343177 0.4910253 0.6481986
## Cluster 5 0.2518233 0.2422802 0.2365862 0.2457371 0.2251552 0.2399655 0.2825647
##
                 20223
                           20224
                                     20225
                                               20226
                                                          20227
                                                                    20228
                                                                              20229
## Cluster 1 0.3819496 0.5572573 0.5534920 0.5344337 0.5198939 0.4841233 0.4814602
## Cluster 2 0.4681466 0.4670674 0.4443226 0.3505161 0.2800117 0.2486979 0.2428035
## Cluster 3 0.3710454 0.4141887 0.4618496 0.4814284 0.4439092 0.4490894 0.4804440
## Cluster 4 0.8044982 0.8240939 0.6385523 0.5894404 0.4742310 0.4353610 0.3745054
## Cluster 5 0.3539526 0.4258966 0.3744181 0.3380086 0.3638060 0.3248707 0.3330647
                 20230
                           20231
                                     20232
                                               20233
                                                          20234
                                                                    20235
## Cluster 1 0.4713369 0.4411631 0.4298289 0.4772241 0.4845477 0.4836353 0.4517785
## Cluster 2 0.2135015 0.2267478 0.2446041 0.2314135 0.2351173 0.2574399 0.2545836
## Cluster 3 0.4480695 0.4539149 0.4646582 0.4726695 0.4753702 0.5068284 0.4894468
## Cluster 4 0.3725560 0.3629170 0.3484765 0.4161480 0.4091372 0.3864296 0.3877256
## Cluster 5 0.3152241 0.2833233 0.3231034 0.3161379 0.3727241 0.3663491 0.3118017
##
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                                                                              20243
## Cluster 1 0.5002493 0.4482414 0.4795902 0.5056565 0.5576658 0.6854218 0.7353541
## Cluster 2 0.2441437 0.2531935 0.2913431 0.2867214 0.3473314 0.3566246 0.4189355
## Cluster 3 0.4981248 0.5015972 0.5187830 0.5766468 0.6224468 0.7092809 0.6513844
## Cluster 4 0.3759386 0.3841047 0.4133213 0.4545884 0.5813610 0.6391661 0.6642094
## Cluster 5 0.2914483 0.2862672 0.3023147 0.3116336 0.3608836 0.3922543 0.3995388
                           20245
                                     20246
                                               20247
                                                          20248
                 20244
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                                                                              20250
## Cluster 1 0.8592135 0.8175504 0.7572772 0.7744695 0.7261286 0.7654324 0.8253050
## Cluster 2 0.5311320 0.5506804 0.6452522 0.8042141 0.7948152 0.8251554 0.9505425
## Cluster 3 0.6610823 0.6943589 0.7024624 0.6738326 0.7145092 0.7658809 0.8329305
## Cluster 4 0.6735704 0.6316643 0.6290939 0.5835596 0.6131191 0.5782888 0.6461733
## Cluster 5 0.4525517 0.5166293 0.4836164 0.5149440 0.5445991 0.6282500 0.7005647
                 20251
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                                               20254
                                                          20255
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                                                                              20257
## Cluster 1 0.8487573 0.8067361 0.7079324 0.5859085 0.4844814 0.3743103 0.2822493
## Cluster 2 1.0390235 0.8930938 0.8051730 0.6883431 0.5552962 0.4189003 0.3243372
## Cluster 3 0.8527021 0.7830340 0.7644681 0.6990085 0.6419844 0.5540156 0.4460596
## Cluster 4 0.6245054 0.5652671 0.5038664 0.4708809 0.4047581 0.3453394 0.2841083
## Cluster 5 0.7969655 0.6855905 0.6606552 0.6858319 0.6787543 0.6389483 0.5865172
                 20258
                           20259
                                     20260
##
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                                                          20262
                                                                    20263
                                                                              20264
## Cluster 1 0.2224297 0.1882215 0.1757520 0.1709363 0.1675849 0.1590186 0.1520729
## Cluster 2 0.2535396 0.2014663 0.1741584 0.1643255 0.1674311 0.1488974 0.1490293
## Cluster 3 0.3514894 0.3053319 0.2666326 0.2304567 0.2174028 0.2043050 0.2031645
## Cluster 4 0.2451516 0.2239675 0.2123718 0.2150253 0.1958556 0.2006606 0.1986462
## Cluster 5 0.4809526 0.4093491 0.3535345 0.3170690 0.2800776 0.2685000 0.2515819
##
                 20265
                           20266
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                                                                    20270
                                                                              20271
```

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## Cluster 1 0.1626538 0.1612480 0.1707215 0.1827175 0.1840146 0.2529204 0.4106963
## Cluster 2 0.1614311 0.1536540 0.1687243 0.1911613 0.2758475 0.2826921 0.4466158
## Cluster 3 0.2005163 0.1986638 0.2001730 0.2172355 0.2581007 0.2918525 0.3478766
## Cluster 4 0.2433141 0.2967365 0.2660650 0.3383502 0.4383538 0.6129134 0.7574874
## Cluster 5 0.2309914 0.2187629 0.2440388 0.2279224 0.2514569 0.2610474 0.3395345
                 20272
                           20273
                                     20274
                                               20275
                                                          20276
                                                                    20277
##
                                                                              20278
## Cluster 1 0.5269761 0.5511923 0.5198462 0.5144721 0.4657135 0.4583674 0.4480159
## Cluster 2 0.5202581 0.4536100 0.3449736 0.2937390 0.2795161 0.2653871 0.2871144
## Cluster 3 0.4082936 0.4436241 0.4253163 0.4189262 0.4235929 0.4669688 0.4419645
## Cluster 4 0.7863538 0.6449350 0.5239458 0.4458484 0.4020036 0.3970505 0.3891336
  Cluster 5 0.4002112 0.4191552 0.4182931 0.3912414 0.3433836 0.3346509 0.3676379
                 20279
                           20280
                                     20281
                                               20282
                                                          20283
                                                                    20284
                                                                              20285
## Cluster 1 0.4070212 0.3868753 0.4058607 0.4568846 0.4563289 0.4449841 0.4320265
## Cluster 2 0.2426276 0.2327067 0.2542434 0.2856657 0.3008123 0.2458592 0.2408475
## Cluster 3 0.4525418 0.4350865 0.4770482 0.4940553 0.5115262 0.4724184 0.4377745
## Cluster 4 0.3779675 0.3256101 0.4330830 0.4426137 0.4023213 0.3783755 0.3644043
## Cluster 5 0.3174871 0.3366034 0.3143966 0.3359353 0.3413448 0.3524828 0.3522414
##
                 20286
                           20287
                                     20288
                                               20289
                                                          20290
                                                                    20291
                                                                              20292
## Cluster 1 0.4296923 0.4773369 0.4939443 0.5488011 0.6305106 0.7700093 0.8869337
## Cluster 2 0.2193255 0.2455015 0.3041525 0.3223871 0.3353079 0.4390176 0.5515073
## Cluster 3 0.4490383 0.4871730 0.5539433 0.6037305 0.6741574 0.6847319 0.7150085
## Cluster 4 0.4024260 0.4481588 0.5148159 0.5765379 0.6323213 0.6954043 0.7339495
## Cluster 5 0.3109914 0.3209224 0.3029957 0.3456164 0.3570603 0.3817371 0.4246724
                 20293
                           20294
                                     20295
                                               20296
                                                          20297
                                                                    20298
## Cluster 1 0.8740623 0.8310424 0.8691578 0.8145928 0.8413289 0.8671167 0.8019483
## Cluster 2 0.6622522 0.7325865 0.8474956 0.8739355 0.9380821 0.9770587 0.9262698
## Cluster 3 0.7464794 0.6930993 0.7590709 0.7457518 0.8104000 0.8736468 0.8955418
## Cluster 4 0.7004224 0.6196029 0.5960325 0.6471083 0.6013394 0.6274079 0.6529061
## Cluster 5 0.4555259 0.5540517 0.5908879 0.5224569 0.5935388 0.6790647 0.6440560
##
                 20300
                           20301
                                     20302
                                               20303
                                                          20304
                                                                    20305
                                                                              20306
## Cluster 1 0.7428966 0.6253408 0.5593660 0.4809324 0.3811618 0.2983740 0.2333011
## Cluster 2 0.8892933 0.7866334 0.6825484 0.5466804 0.4280000 0.3208504 0.2265543
## Cluster 3 0.8005574 0.7402738 0.7232511 0.6386113 0.5110000 0.4229929 0.3642340
## Cluster 4 0.6318989 0.5387690 0.4348953 0.4204260 0.3356462 0.2859783 0.2557256
## Cluster 5 0.6180776 0.6803017 0.6330603 0.6599138 0.6411034 0.5482672 0.4286250
                           20308
                                     20309
                                               20310
                 20307
                                                          20311
                                                                    20312
                                                                              20313
## Cluster 1 0.1981366 0.1804244 0.1705504 0.1700955 0.1660782 0.1665027 0.1638727
## Cluster 2 0.2064927 0.1764868 0.1641056 0.1557830 0.1494575 0.1547419 0.1519677
## Cluster 3 0.3288667 0.2769830 0.2481078 0.2231007 0.2045745 0.2162298 0.2129277
## Cluster 4 0.2409567 0.2216787 0.2259675 0.2099206 0.2061697 0.2099495 0.2287942
## Cluster 5 0.4029957 0.3447802 0.3238103 0.2799138 0.2688190 0.2568966 0.2444483
                 20314
                           20315
                                     20316
                                               20317
                                                          20318
                                                                    20319
                                                                              20320
## Cluster 1 0.1734204 0.1772851 0.1750796 0.1999987 0.2358263 0.4222865 0.5830716
## Cluster 2 0.1624897 0.1840205 0.2081789 0.2482786 0.2998710 0.4717449 0.4733548
## Cluster 3 0.2125333 0.2158227 0.2241376 0.2636624 0.2921475 0.3658184 0.4410057
## Cluster 4 0.2857365 0.2743610 0.3596823 0.4345199 0.5965415 0.8072635 0.8226931
## Cluster 5 0.2356897 0.2254095 0.2298147 0.2711250 0.2927802 0.3252284 0.3602069
                           20322
                                                          20325
##
                 20321
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                                               20324
                                                                    20326
                                                                              20327
## Cluster 1 0.5405424 0.4977997 0.5254973 0.4748249 0.4610570 0.4377162 0.4193528
## Cluster 2 0.4668182 0.3694575 0.3363284 0.3266364 0.2674956 0.2706540 0.2533519
## Cluster 3 0.4713234 0.4662043 0.4091489 0.4113589 0.4453135 0.4424851 0.4750908
## Cluster 4 0.5975451 0.5363538 0.5104404 0.3917148 0.3720542 0.3485162 0.3564729
## Cluster 5 0.4133793 0.3509440 0.3012500 0.3170302 0.3593966 0.3493276 0.3216724
##
                 20328
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                                               20331
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                                                                    20333
                                                                              20334
```

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## Cluster 1 0.4097626 0.4292480 0.4519363 0.4491684 0.4478674 0.4439111 0.4217918
## Cluster 2 0.2383783 0.2175689 0.2531642 0.2501261 0.2487097 0.2673842 0.2355015
## Cluster 3 0.5193418 0.4907972 0.5402851 0.5510780 0.5220213 0.5054851 0.5278128
## Cluster 4 0.3667040 0.4002635 0.4142780 0.4089639 0.3810000 0.3674765 0.3650903
## Cluster 5 0.3028707 0.3440905 0.3290776 0.3559397 0.3578707 0.3253664 0.3025431
                                     20337
                                               20338
                                                          20339
                                                                    20340
                 20335
                           20336
                                                                              20341
## Cluster 1 0.4626538 0.5371936 0.5421393 0.6439377 0.7330557 0.8545942 0.8600796
## Cluster 2 0.2547243 0.2889384 0.3407918 0.3960880 0.4374487 0.5442229 0.6036070
## Cluster 3 0.5374525 0.5698255 0.5952255 0.6992709 0.6931262 0.6799390 0.6877844
## Cluster 4 0.4166570 0.4862563 0.5698412 0.6168375 0.6576029 0.6774657 0.6332852
  Cluster 5 0.3211681 0.3411078 0.3452802 0.3677888 0.4264871 0.4272198 0.4671250
                           20343
                                     20344
                 20342
                                               20345
                                                          20346
                                                                    20347
                                                                              20348
## Cluster 1 0.8513568 0.7964085 0.8064271 0.8106936 0.7982653 0.7643541 0.7487599
## Cluster 2 0.6977507 0.7804575 0.7564340 0.8269589 0.7801642 0.7986305 0.7939443
## Cluster 3 0.6942979 0.7026695 0.6988000 0.7083546 0.7917887 0.8122156 0.7604695
## Cluster 4 0.6324116 0.6055596 0.5579134 0.5500144 0.5892058 0.5743971 0.5342058
## Cluster 5 0.4792931 0.4881164 0.4932802 0.5580776 0.6418793 0.6795517 0.6553147
##
                 20349
                           20350
                                     20351
                                               20352
                                                          20353
                                                                    20354
                                                                              20355
## Cluster 1 0.6596300 0.5896034 0.5119178 0.4696167 0.3943979 0.3007228 0.2420557
## Cluster 2 0.7203754 0.6444956 0.6176569 0.5144252 0.4149091 0.3257771 0.2779238
## Cluster 3 0.7109206 0.6920043 0.6412312 0.5774667 0.5358525 0.4548482 0.3620411
## Cluster 4 0.4814007 0.4616715 0.4075487 0.4060253 0.3594765 0.2916137 0.2715776
## Cluster 5 0.6802371 0.6516034 0.6827716 0.6573233 0.5609181 0.5010474 0.4262457
                 20356
                           20357
                                     20358
                                               20359
                                                          20360
                                                                    20361
## Cluster 1 0.2138050 0.1966870 0.1808236 0.1762255 0.1707931 0.1660199 0.1778634
## Cluster 2 0.2303578 0.1904956 0.1792375 0.1715249 0.1712639 0.1602639 0.1777419
## Cluster 3 0.3129816 0.2682085 0.2408170 0.2335390 0.2188284 0.2125489 0.2106199
## Cluster 4 0.2509892 0.2513502 0.2137581 0.2146931 0.2107798 0.2530325 0.2886570
## Cluster 5 0.3500172 0.3217845 0.2868836 0.2710560 0.2660905 0.2562155 0.2327931
##
                 20363
                           20364
                                     20365
                                               20366
                                                          20367
                                                                    20368
                                                                              20369
## Cluster 1 0.1810491 0.1749576 0.1923753 0.2167016 0.2578130 0.3020279 0.4145000
## Cluster 2 0.1778387 0.1840557 0.2070469 0.2117361 0.2304399 0.2462082 0.2931437
## Cluster 3 0.2172014 0.2144667 0.2405915 0.2305603 0.2312071 0.2851305 0.3261106
## Cluster 4 0.2563502 0.3161480 0.3860072 0.4255848 0.5055704 0.6485054 0.5686859
  Cluster 5 0.2344095 0.2370905 0.2436379 0.2349957 0.2762629 0.3289267 0.3680000
                 20370
                           20371
                                     20372
                                               20373
                                                          20374
                                                                    20375
                                                                              20376
## Cluster 1 0.5021326 0.6313064 0.6915172 0.6909019 0.7038700 0.7270491 0.7043833
## Cluster 2 0.3753812 0.4218328 0.4303021 0.4397449 0.4352698 0.4642053 0.4925660
## Cluster 3 0.3911163 0.4788369 0.4983121 0.5749986 0.6062170 0.6342128 0.6837447
## Cluster 4 0.6186679 0.5795848 0.5292202 0.5222166 0.5435632 0.4787762 0.4701805
## Cluster 5 0.3331897 0.3579914 0.4120431 0.4245345 0.4221121 0.4120259 0.4497241
                           20378
                                     20379
                                               20380
                                                          20381
                                                                    20382
                 20377
                                                                              20383
## Cluster 1 0.7146976 0.6758316 0.6910756 0.6257056 0.5928329 0.5982347 0.5884973
## Cluster 2 0.4909150 0.4622522 0.4601789 0.4969501 0.4865425 0.4368152 0.4444751
## Cluster 3 0.6769816 0.6569348 0.6789092 0.6587021 0.6385816 0.6673603 0.6538553
## Cluster 4 0.5377473 0.5150144 0.5622130 0.4989928 0.4465957 0.5200650 0.5105487
## Cluster 5 0.4628578 0.4907888 0.4987716 0.5059612 0.4530172 0.4278276 0.4270862
                 20384
                           20385
                                     20386
                                                          20388
##
                                               20387
                                                                    20389
                                                                              20390
## Cluster 1 0.6024576 0.6075597 0.6550133 0.7403634 0.8541857 0.8675305 0.7746472
## Cluster 2 0.4682669 0.5237801 0.5181232 0.5140411 0.5962551 0.6640909 0.6816158
## Cluster 3 0.6323730 0.6674426 0.6983489 0.7003447 0.7219404 0.7610553 0.7438567
## Cluster 4 0.5776787 0.6164693 0.6125451 0.6052455 0.5975884 0.6002383 0.6054838
## Cluster 5 0.4403319 0.4521724 0.4923664 0.4993147 0.4446638 0.5082112 0.5135474
##
                 20391
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                                                                    20396
                                                                              20397
```

```
## Cluster 1 0.7568528 0.7117149 0.7416592 0.7487997 0.7538223 0.6992533 0.6449615
## Cluster 2 0.7801290 0.7716393 0.8930352 0.8772023 0.8494516 0.7900323 0.7165161
## Cluster 3 0.7345404 0.7147121 0.7336227 0.8177617 0.7952241 0.7552979 0.7047645
## Cluster 4 0.5784729 0.5531552 0.5747762 0.5851986 0.5754368 0.5541047 0.4730975
## Cluster 5 0.5491552 0.5661724 0.6213448 0.6862155 0.7122198 0.6543448 0.6321078
                 20398
                           20399
                                     20400
                                               20401
                                                          20402
                                                                    20403
##
## Cluster 1 0.5708793 0.4909496 0.4356711 0.3679032 0.2939668 0.2400252 0.2155000
## Cluster 2 0.6492933 0.6126891 0.5103167 0.4388592 0.3315455 0.2932522 0.2461877
## Cluster 3 0.6488553 0.6046454 0.5358539 0.4717901 0.4185901 0.3703603 0.3248511
## Cluster 4 0.4572347 0.4218881 0.3595090 0.3272708 0.2887365 0.2753899 0.2736101
  Cluster 5 0.5944698 0.6514181 0.5656078 0.5083534 0.4807026 0.4109095 0.3903966
                           20406
                                     20407
                                               20408
                 20405
                                                          20409
                                                                    20410
                                                                              20411
## Cluster 1 0.2020676 0.1870570 0.1833329 0.1664562 0.1686817 0.1717507 0.1777215
## Cluster 2 0.2166862 0.2015161 0.1834751 0.1830762 0.1747449 0.1742727 0.1810880
## Cluster 3 0.2819504 0.2527759 0.2410525 0.2257631 0.2056809 0.2012738 0.2063603
## Cluster 4 0.2727112 0.2385451 0.2359567 0.2134982 0.2430325 0.2707870 0.2501372
## Cluster 5 0.3227672 0.2786897 0.3063405 0.2789914 0.2583060 0.2454483 0.2385474
##
                 20412
                           20413
                                     20414
                                               20415
                                                          20416
                                                                    20417
                                                                              20418
## Cluster 1 0.1800265 0.1792215 0.1896127 0.2288621 0.2695199 0.3527268 0.4688700
## Cluster 2 0.2134223 0.2112463 0.1885220 0.2092551 0.2351114 0.2773959 0.3496979
## Cluster 3 0.2155801 0.2407191 0.2267730 0.2225801 0.2437617 0.2974241 0.3251149
## Cluster 4 0.2888448 0.3523141 0.3843466 0.4309819 0.5313032 0.5520433 0.5910686
## Cluster 5 0.2384224 0.2324009 0.2360000 0.2768190 0.2942802 0.3122629 0.3282974
                 20419
                           20420
                                     20421
                                               20422
                                                          20423
                                                                    20424
## Cluster 1 0.5760504 0.7258793 0.7296366 0.7262599 0.7740557 0.7376817 0.7529536
## Cluster 2 0.4013636 0.4816979 0.4682111 0.5280499 0.4556628 0.4745367 0.4836833
## Cluster 3 0.4115631 0.5280284 0.5851560 0.6510539 0.6906482 0.7367773 0.8067447
## Cluster 4 0.6904116 0.5855993 0.5398412 0.5744693 0.6884874 0.6551300 0.5898195
## Cluster 5 0.3535948 0.4122284 0.4602371 0.4416767 0.4691164 0.4932457 0.4851509
##
                 20426
                           20427
                                     20428
                                               20429
                                                          20430
                                                                    20431
                                                                              20432
## Cluster 1 0.7605239 0.7830186 0.7588395 0.6642308 0.6267228 0.6142255 0.5847507
## Cluster 2 0.5960235 0.5633519 0.4859120 0.4540499 0.4944985 0.4944282 0.4207918
## Cluster 3 0.8259305 0.8058596 0.7987532 0.7434270 0.7640766 0.7479645 0.7233121
## Cluster 4 0.6451805 0.5809928 0.4832671 0.4973827 0.5001191 0.5678159 0.5477148
## Cluster 5 0.4631724 0.4370603 0.4471336 0.4599267 0.4280474 0.4032155 0.4470259
                           20434
                                     20435
                                               20436
                 20433
                                                          20437
                                                                    20438
                                                                              20439
## Cluster 1 0.5822427 0.6139735 0.6792069 0.7424271 0.7067785 0.7565371 0.7934403
## Cluster 2 0.4321789 0.4805924 0.5394252 0.6010616 0.7704897 0.7613226 0.8766921
## Cluster 3 0.7295064 0.6812454 0.6438567 0.6513518 0.6686000 0.6456085 0.6873943
## Cluster 4 0.5482347 0.5271769 0.5514404 0.6191300 0.6311119 0.5742274 0.5854152
## Cluster 5 0.5026940 0.5023233 0.4703405 0.4663319 0.5547716 0.5638060 0.6302198
                 20440
                           20441
                                     20442
                                               20443
                                                          20444
                                                                    20445
                                                                              20446
## Cluster 1 0.8107719 0.8725398 0.8341220 0.7865610 0.7290531 0.6149456 0.5368090
## Cluster 2 0.8904428 0.9577859 0.9357537 0.9041760 0.8049501 0.7533930 0.6353783
## Cluster 3 0.7676908 0.8607787 0.8417716 0.8643163 0.7811149 0.7292496 0.6526723
## Cluster 4 0.6491588 0.6498592 0.6484079 0.6161480 0.5546931 0.5104079 0.4077545
## Cluster 5 0.6007155 0.7269871 0.7230517 0.6927241 0.6921379 0.6989009 0.6370086
##
                 20447
                           20448
                                     20449
                                               20450
                                                          20451
                                                                    20452
                                                                              20453
## Cluster 1 0.4407692 0.3563846 0.2700955 0.2235385 0.1902745 0.1656844 0.1653077
## Cluster 2 0.5041877 0.3869883 0.3028739 0.2431965 0.2161085 0.1718710 0.1657713
## Cluster 3 0.6192043 0.5077348 0.4044950 0.3360596 0.2829333 0.2543390 0.2298241
## Cluster 4 0.3703032 0.3178014 0.2695415 0.2334079 0.2353646 0.2149134 0.2164549
## Cluster 5 0.6784483 0.6407457 0.5248707 0.4435129 0.3825647 0.3159871 0.2911897
##
                 20454
                           20455
                                     20456
                                               20457
                                                          20458
                                                                    20459
```

```
## Cluster 1 0.1625239 0.1608634 0.1546883 0.1566976 0.1616061 0.1657971 0.1738714
## Cluster 2 0.1555894 0.1536686 0.1569150 0.1507361 0.1642962 0.1785044 0.2089853
## Cluster 3 0.2159248 0.2019603 0.1994624 0.1943404 0.1950525 0.2011617 0.2206582
## Cluster 4 0.1993105 0.1909531 0.1884477 0.2255487 0.2524729 0.2531011 0.3318736
## Cluster 5 0.2503319 0.2589914 0.2495000 0.2505345 0.2229181 0.2454914 0.2460345
                 20461
                           20462
                                     20463
                                               20464
                                                          20465
                                                                    20466
##
                                                                              20467
## Cluster 1 0.1844562 0.2524058 0.3925411 0.5668011 0.5530995 0.5285743 0.4766180
## Cluster 2 0.2561994 0.2900645 0.4581290 0.4873490 0.4724839 0.3743900 0.3057801
## Cluster 3 0.2590496 0.2917092 0.3154695 0.3867461 0.4655220 0.4226213 0.4308369
## Cluster 4 0.4516426 0.6321516 0.7895487 0.7956173 0.7158592 0.6075523 0.5176570
  Cluster 5 0.2440776 0.2861681 0.3616810 0.4187069 0.4265172 0.3414483 0.3131552
                           20469
                                     20470
                                               20471
                                                          20472
                 20468
                                                                    20473
                                                                              20474
## Cluster 1 0.4882706 0.4907440 0.5027334 0.4709310 0.4875995 0.4952427 0.5260981
## Cluster 2 0.2839619 0.2714487 0.2653490 0.2437537 0.2622669 0.2883548 0.2870909
## Cluster 3 0.4155007 0.4496383 0.4604085 0.4784298 0.4906624 0.5036440 0.5272383
## Cluster 4 0.4652310 0.3984729 0.3745271 0.3478664 0.4036534 0.3616534 0.3864079
## Cluster 5 0.3272328 0.3442328 0.3551638 0.3455690 0.3001034 0.3116336 0.3511940
##
                 20475
                           20476
                                     20477
                                               20478
                                                          20479
                                                                    20480
                                                                              20481
## Cluster 1 0.5122613 0.4836936 0.4397719 0.4589019 0.4853501 0.4907573 0.5867905
## Cluster 2 0.2627126 0.2657478 0.2654047 0.2836012 0.3030616 0.2971877 0.3433226
## Cluster 3 0.5339759 0.5342511 0.5101106 0.5146865 0.5788113 0.5967901 0.6954085
## Cluster 4 0.3936390 0.4166570 0.4166245 0.4552635 0.4769097 0.5223971 0.6281877
## Cluster 5 0.3309612 0.3400345 0.3254655 0.3111638 0.3516207 0.4033405 0.4165431
                 20482
                           20483
                                     20484
                                               20485
                                                          20486
                                                                    20487
## Cluster 1 0.7384960 0.8843011 1.0141472 0.9166565 0.7968780 0.8172374 0.8513183
## Cluster 2 0.3689531 0.4344516 0.5437742 0.6845865 0.7715073 0.9083930 0.9528123
## Cluster 3 0.7188752 0.7272184 0.7728227 0.7764837 0.7479957 0.8028809 0.8279106
## Cluster 4 0.7107762 0.7142419 0.7683646 0.7218375 0.6799856 0.6105487 0.6799783
## Cluster 5 0.4277414 0.4243578 0.4891940 0.5572974 0.5757198 0.6238793 0.6146207
##
                 20489
                           20490
                                     20491
                                               20492
                                                          20493
                                                                    20494
                                                                              20495
## Cluster 1 0.8679907 0.9027454 0.8329828 0.7462493 0.6685119 0.5592268 0.4861101
## Cluster 2 0.9636481 0.9777478 0.9686246 0.9223402 0.8142698 0.7054692 0.5440850
## Cluster 3 0.8341716 0.8315957 0.8416965 0.8056426 0.7510383 0.6792851 0.6360454
## Cluster 4 0.7039819 0.6871191 0.6101625 0.6149134 0.5379206 0.4479206 0.3861155
## Cluster 5 0.6522716 0.6919483 0.7214138 0.7321293 0.7090216 0.7355776 0.7489353
                                               20499
                                     20498
                                                          20500
                 20496
                           20497
                                                                    20501
                                                                              20502
## Cluster 1 0.3909682 0.2918687 0.2404775 0.1963249 0.1832042 0.1816565 0.1685133
## Cluster 2 0.4282933 0.3343284 0.2608827 0.2156921 0.1839150 0.1698710 0.1750733
## Cluster 3 0.5304894 0.4506766 0.3631262 0.2910652 0.2734284 0.2371106 0.2216738
## Cluster 4 0.3207581 0.2708195 0.2523610 0.2431516 0.2237834 0.2137220 0.2029675
## Cluster 5 0.7100000 0.5790043 0.4689138 0.4194655 0.3229310 0.3027069 0.2700905
                 20503
                           20504
                                     20505
                                               20506
                                                          20507
                                                                    20508
                                                                              20509
## Cluster 1 0.1687666 0.1631366 0.1709629 0.1679310 0.1752321 0.1867374 0.1883183
## Cluster 2 0.1718270 0.1594575 0.1524780 0.1692610 0.1777273 0.2237243 0.2819267
## Cluster 3 0.2111674 0.2064397 0.2057745 0.1987035 0.2143730 0.2246028 0.2557915
## Cluster 4 0.1922888 0.1936715 0.2268556 0.2829964 0.2628953 0.3315126 0.4335523
## Cluster 5 0.2683836 0.2633448 0.2404612 0.2283362 0.2433147 0.2515819 0.2584698
                                     20512
##
                 20510
                           20511
                                               20513
                                                          20514
                                                                    20515
                                                                              20516
## Cluster 1 0.2587997 0.4573090 0.6183634 0.6047268 0.5446764 0.5284337 0.5429271
## Cluster 2 0.2777742 0.4071789 0.4941672 0.4687742 0.3655073 0.3062845 0.2930528
## Cluster 3 0.3021064 0.3856000 0.4275121 0.4720113 0.4699092 0.4397404 0.4165887
## Cluster 4 0.6240505 0.8183430 0.7352960 0.6571877 0.6192310 0.5425054 0.4417834
## Cluster 5 0.2731034 0.3492629 0.4575043 0.4954353 0.3993362 0.3666897 0.3753966
##
                 20517
                           20518
                                     20519
                                               20520
                                                          20521
                                                                    20522
                                                                              20523
```

```
## Cluster 1 0.5071034 0.4681167 0.4526286 0.4229828 0.4195464 0.4639271 0.4883289
## Cluster 2 0.2700059 0.2774047 0.2726628 0.2521642 0.2602346 0.2648006 0.3016804
## Cluster 3 0.4400099 0.4681021 0.4571106 0.5030752 0.4868057 0.5319461 0.5253489
## Cluster 4 0.3879747 0.3670939 0.3472094 0.3709819 0.3738700 0.3953032 0.4168303
## Cluster 5 0.3276466 0.3043836 0.2861466 0.3169095 0.3459784 0.3625216 0.3896293
                 20524
                           20525
                                     20526
                                                          20528
                                                                    20529
##
                                               20527
                                                                              20530
## Cluster 1 0.4389523 0.4346883 0.4566658 0.4665902 0.4629058 0.4959483 0.6528196
## Cluster 2 0.3127038 0.2890968 0.3085455 0.2882287 0.3086158 0.3499120 0.3805924
## Cluster 3 0.4984326 0.5152667 0.5447319 0.5648936 0.6091262 0.6723631 0.7312993
## Cluster 4 0.4169097 0.4661986 0.4456137 0.4841805 0.5151191 0.6224657 0.6546823
  Cluster 5 0.3354957 0.3259612 0.3055302 0.3040259 0.3317543 0.3293060 0.3779353
                           20532
                                               20534
                 20531
                                     20533
                                                          20535
                                                                    20536
                                                                              20537
## Cluster 1 0.8248952 0.9242732 0.8801804 0.7549443 0.7762905 0.7943170 0.9025305
## Cluster 2 0.4259472 0.5437654 0.6317595 0.7014927 0.8528123 0.8408299 0.9502962
## Cluster 3 0.7282567 0.7166596 0.7000709 0.6429064 0.6409021 0.7023390 0.7652794
## Cluster 4 0.6834477 0.6996101 0.6050903 0.5122058 0.6109892 0.6203827 0.7065884
## Cluster 5 0.3946681 0.4103836 0.4418103 0.4471681 0.4963922 0.5499181 0.6144009
##
                 20538
                           20539
                                     20540
                                               20541
                                                          20542
                                                                    20543
                                                                              20544
## Cluster 1 0.9157480 0.8209589 0.7362905 0.6828594 0.5549164 0.4788568 0.3760729
## Cluster 2 1.0052375 1.0324663 0.9040499 0.8681466 0.7350264 0.5846686 0.4593754
## Cluster 3 0.8948383 0.8766241 0.8496780 0.7601574 0.7043730 0.6401092 0.5547929
## Cluster 4 0.6440036 0.6672563 0.5733791 0.5121480 0.4587978 0.4351877 0.3350505
## Cluster 5 0.6653664 0.6927845 0.6943836 0.7050172 0.7131293 0.7329181 0.6508578
                 20545
                           20546
                                     20547
                                               20548
                                                          20549
                                                                    20550
## Cluster 1 0.2691605 0.2190809 0.1846552 0.1699204 0.1700716 0.1670358 0.1615119
## Cluster 2 0.3448651 0.2512581 0.1916833 0.1662727 0.1695777 0.1646510 0.1476657
## Cluster 3 0.4217773 0.3361816 0.2963163 0.2370993 0.2287801 0.2086057 0.2033021
## Cluster 4 0.2968303 0.2430253 0.2040108 0.1977329 0.2055632 0.1940722 0.1925632
## Cluster 5 0.5383922 0.4489009 0.4010603 0.3781983 0.3413190 0.2720216 0.2718276
##
                 20552
                           20553
                                     20554
                                               20555
                                                          20556
                                                                    20557
                                                                              20558
## Cluster 1 0.1596393 0.1634469 0.1702759 0.1733488 0.1843156 0.2098408 0.2504483
## Cluster 2 0.1528006 0.1524194 0.1555132 0.1916129 0.2191584 0.3254927 0.3117478
## Cluster 3 0.2037191 0.2026511 0.1987121 0.2082851 0.2224312 0.2604454 0.2770199
## Cluster 4 0.1955884 0.2211877 0.2606534 0.2748448 0.3446931 0.4503430 0.5746426
## Cluster 5 0.2533707 0.2367629 0.2153879 0.2504698 0.2499353 0.2599741 0.2767931
                                     20561
                                               20562
                                                          20563
                 20559
                           20560
                                                                    20564
                                                                              20565
## Cluster 1 0.4207520 0.5837546 0.5710106 0.5280318 0.5078090 0.4940637 0.4745066
## Cluster 2 0.4389413 0.4426540 0.4284135 0.2943812 0.2807038 0.2763783 0.2539472
## Cluster 3 0.3446199 0.4043660 0.4570454 0.4315858 0.4295915 0.4478553 0.4570780
## Cluster 4 0.7580361 0.7956065 0.6757329 0.5239170 0.4816101 0.4188014 0.3966606
## Cluster 5 0.3837284 0.4270819 0.4530862 0.3596422 0.3382414 0.3287457 0.3161121
                 20566
                           20567
                                     20568
                                               20569
                                                          20570
                                                                    20571
                                                                              20572
## Cluster 1 0.4447241 0.4389443 0.4142109 0.4100729 0.4167294 0.4454151 0.4283833
## Cluster 2 0.2373284 0.2430059 0.2209384 0.2324604 0.2145601 0.2598827 0.2758534
## Cluster 3 0.4289816 0.4864709 0.4662667 0.4820298 0.4958411 0.5225475 0.4840411
## Cluster 4 0.4018520 0.3461805 0.3445379 0.3707437 0.3892491 0.4115343 0.3992708
## Cluster 5 0.3061379 0.3003879 0.2901552 0.3499310 0.3343405 0.3517500 0.3735388
                           20574
                                     20575
                                               20576
##
                 20573
                                                          20577
                                                                    20578
                                                                              20579
## Cluster 1 0.4165570 0.4402626 0.4748130 0.4723647 0.5630106 0.6802202 0.7819164
## Cluster 2 0.2824370 0.2381114 0.2496217 0.2811378 0.3461349 0.3518651 0.3697390
## Cluster 3 0.4661787 0.4866809 0.5120071 0.5765348 0.6268440 0.6957887 0.7142057
## Cluster 4 0.3785235 0.4049531 0.4728917 0.4937112 0.5496209 0.5960505 0.6512780
## Cluster 5 0.3313966 0.3095905 0.3316422 0.3593017 0.3599914 0.3823448 0.3753879
##
                 20580
                           20581
                                     20582
                                               20583
                                                          20584
                                                                    20585
                                                                              20586
```

```
## Cluster 1 0.8756711 0.8742202 0.8076154 0.8458621 0.8458077 0.9094151 0.8798196
## Cluster 2 0.5005806 0.6234839 0.6894633 0.8157273 0.8977683 0.9669179 0.9776891
## Cluster 3 0.7262000 0.7113234 0.6331532 0.6833319 0.7174553 0.8374766 0.8697234
## Cluster 4 0.6451227 0.6346823 0.5887401 0.5473610 0.6271913 0.6061191 0.6563502
## Cluster 5 0.4211207 0.5302328 0.4980517 0.5272155 0.5051767 0.6164353 0.6553233
                           20588
                                     20589
                                               20590
                                                         20591
##
                 20587
                                                                    20592
                                                                              20593
## Cluster 1 0.8448236 0.7284523 0.6261247 0.5420995 0.4800371 0.3620981 0.2725942
## Cluster 2 0.9327654 0.8974751 0.8280968 0.6860264 0.5653255 0.4505073 0.3025455
## Cluster 3 0.8276908 0.7955191 0.7381362 0.6644936 0.6151617 0.5224837 0.4374227
## Cluster 4 0.6409819 0.5507978 0.5075704 0.4607798 0.3864007 0.3427437 0.2916968
  Cluster 5 0.7159871 0.7194440 0.7254698 0.7027802 0.7374310 0.6464612 0.5501853
                           20595
                                     20596
                                               20597
                 20594
                                                         20598
                                                                    20599
                                                                              20600
## Cluster 1 0.2168316 0.1905345 0.1759098 0.1685902 0.1673249 0.1658355 0.1575093
## Cluster 2 0.2588094 0.2047771 0.1752698 0.1565073 0.1506716 0.1525015 0.1481378
## Cluster 3 0.3550298 0.2891262 0.2480482 0.2249092 0.2067674 0.2007234 0.1975660
## Cluster 4 0.2625704 0.2350939 0.2219314 0.2159422 0.2047076 0.2029856 0.2193357
## Cluster 5 0.4813922 0.3997974 0.3168578 0.3097543 0.2678405 0.2595948 0.2521336
##
                 20601
                           20602
                                     20603
                                               20604
                                                         20605
                                                                    20606
                                                                              20607
## Cluster 1 0.1582427 0.1644403 0.1609576 0.1726247 0.1990889 0.2574934 0.4113448
## Cluster 2 0.1496891 0.1605425 0.1871613 0.2115279 0.2729062 0.3092698 0.4202346
## Cluster 3 0.1905617 0.1960667 0.1929645 0.2189972 0.2629887 0.2912993 0.3582936
## Cluster 4 0.2472744 0.2452996 0.2357798 0.3702022 0.4511227 0.6275054 0.8427184
## Cluster 5 0.2485905 0.2248966 0.2219267 0.2192888 0.2643319 0.2912371 0.3496724
                 20608
                           20609
                                     20610
                                               20611
                                                         20612
                                                                    20613
## Cluster 1 0.5755477 0.5952056 0.5439788 0.5546870 0.5219310 0.4578979 0.4326472
## Cluster 2 0.4691965 0.4507390 0.3677126 0.2969941 0.2548387 0.2540264 0.2397683
## Cluster 3 0.4353433 0.4279972 0.4518156 0.4239929 0.3940426 0.4342752 0.4284539
## Cluster 4 0.8132852 0.6438592 0.5275235 0.4787112 0.3765199 0.3740325 0.3543899
## Cluster 5 0.3785647 0.4064440 0.3812845 0.3478103 0.3082845 0.3066207 0.3191078
##
                 20615
                           20616
                                     20617
                                               20618
                                                         20619
                                                                    20620
                                                                              20621
## Cluster 1 0.4161300 0.4285332 0.4261512 0.4744257 0.4442507 0.4439337 0.4009204
## Cluster 2 0.2453138 0.2290733 0.2285572 0.2536891 0.2695455 0.2227185 0.2411496
## Cluster 3 0.4737305 0.4870993 0.4359007 0.4836709 0.4856213 0.4606128 0.4572057
## Cluster 4 0.3231588 0.3944513 0.4039892 0.4332671 0.3961227 0.4006390 0.3953971
  Cluster 5 0.3429009 0.3583621 0.3723534 0.3795733 0.3543362 0.3181379 0.3416983
                           20623
                                               20625
                 20622
                                     20624
                                                         20626
                                                                    20627
## Cluster 1 0.4232387 0.4425146 0.4855703 0.5240225 0.6508223 0.7408554 0.8642851
## Cluster 2 0.2538504 0.2690762 0.3297390 0.3478534 0.3967683 0.4020323 0.4758768
## Cluster 3 0.4909447 0.5228993 0.5783064 0.6292496 0.6957291 0.6779972 0.6709745
## Cluster 4 0.4004585 0.4410903 0.5008412 0.6089350 0.6713430 0.6713357 0.7053177
## Cluster 5 0.3378276 0.3342888 0.3526810 0.3508922 0.3512802 0.3486767 0.4300474
                 20629
                           20630
                                     20631
                                               20632
                                                         20633
                                                                    20634
                                                                              20635
## Cluster 1 0.8000743 0.7404894 0.7240915 0.7805995 0.8357467 0.9307082 0.8624509
## Cluster 2 0.5992053 0.6481378 0.7112199 0.8175689 0.8833578 0.9326393 0.9917742
## Cluster 3 0.6767560 0.6474355 0.6769021 0.7237730 0.7878553 0.8647433 0.8680199
## Cluster 4 0.6661841 0.6032094 0.6137726 0.5736282 0.6369711 0.6361588 0.6314007
## Cluster 5 0.4663233 0.4828319 0.5717112 0.5897371 0.6293405 0.6461509 0.7908922
                           20637
                                     20638
                                               20639
##
                 20636
                                                         20640
                                                                    20641
                                                                              20642
## Cluster 1 0.7763050 0.6473939 0.5612467 0.4712745 0.3749655 0.2961260 0.2283554
## Cluster 2 0.9015044 0.7863724 0.6828768 0.5517507 0.4384370 0.3174604 0.2395249
## Cluster 3 0.8254355 0.7738511 0.7289660 0.6419404 0.5326298 0.4393163 0.3424227
## Cluster 4 0.5766462 0.5313285 0.4309531 0.3850000 0.3595596 0.3292383 0.2710000
## Cluster 5 0.7238448 0.7299009 0.6976422 0.7390948 0.6743491 0.5441983 0.4600948
##
                 20643
                           20644
                                     20645
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                                                                              20649
```

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## Cluster 1 0.1997347 0.1809841 0.1782944 0.1685491 0.1595796 0.1709125 0.1640796
## Cluster 2 0.1904692 0.1835484 0.1641114 0.1607742 0.1556628 0.1558065 0.1526334
## Cluster 3 0.2891872 0.2619035 0.2306539 0.2129716 0.2020823 0.1977489 0.2009844
## Cluster 4 0.2288014 0.2040794 0.2197076 0.2036390 0.2220830 0.2147762 0.2525379
## Cluster 5 0.3963405 0.3322371 0.3203448 0.2877026 0.3097198 0.2965388 0.2642672
                 20650
                           20651
                                     20652
                                                          20654
##
                                               20653
                                                                    20655
                                                                              20656
## Cluster 1 0.1738408 0.1819138 0.1781180 0.1947467 0.2224297 0.3882334 0.5565451
## Cluster 2 0.1672229 0.1789824 0.2028123 0.2780557 0.2964487 0.4236481 0.4684692
## Cluster 3 0.2022624 0.2052766 0.2174624 0.2560582 0.2736170 0.3390794 0.4137716
## Cluster 4 0.2757545 0.2665415 0.3560000 0.4212202 0.5776101 0.7845199 0.7900072
  Cluster 5 0.2434741 0.2560172 0.2707155 0.2848362 0.2890216 0.3460690 0.4408060
                           20658
                                     20659
                                               20660
                 20657
                                                          20661
                                                                    20662
                                                                              20663
## Cluster 1 0.5637706 0.5648448 0.5110637 0.5045332 0.4840875 0.4446008 0.4295491
## Cluster 2 0.4425367 0.3597185 0.3702933 0.3196100 0.2848035 0.2828065 0.2475279
## Cluster 3 0.4738624 0.4618738 0.4259461 0.4595589 0.4375362 0.4322851 0.4539135
## Cluster 4 0.6469819 0.5333213 0.5020469 0.4655523 0.4122888 0.4121011 0.4167004
## Cluster 5 0.4023966 0.3758578 0.3854871 0.3602112 0.3380819 0.3481681 0.3318664
##
                 20664
                           20665
                                     20666
                                               20667
                                                          20668
                                                                    20669
                                                                              20670
## Cluster 1 0.4137493 0.4019562 0.4123355 0.4596737 0.4291432 0.4216313 0.4437003
## Cluster 2 0.2497595 0.2271789 0.2550733 0.2828915 0.2800674 0.2617859 0.2771320
## Cluster 3 0.4620298 0.4453319 0.5271333 0.5189319 0.4717674 0.4722794 0.5050000
## Cluster 4 0.3728628 0.3883935 0.3912491 0.3767545 0.3643574 0.3779314 0.3780830
## Cluster 5 0.3212672 0.3510647 0.3820690 0.3188578 0.3146983 0.3500345 0.3072672
                 20671
                           20672
                                     20673
                                               20674
                                                          20675
                                                                    20676
## Cluster 1 0.4554775 0.4843117 0.5360637 0.6346578 0.7381247 0.7987069 0.7877414
## Cluster 2 0.2971760 0.3063196 0.3763402 0.4084282 0.4464956 0.4681261 0.5674516
## Cluster 3 0.5219007 0.5430397 0.5958000 0.6438241 0.6559121 0.6420326 0.6543362
## Cluster 4 0.4063032 0.4486643 0.5311625 0.5403249 0.5501011 0.6304946 0.5587762
## Cluster 5 0.3377586 0.3512371 0.3608276 0.3677284 0.3787328 0.4393190 0.4675776
##
                 20678
                           20679
                                     20680
                                               20681
                                                          20682
                                                                    20683
                                                                              20684
## Cluster 1 0.7422613 0.7551379 0.8033196 0.8578753 0.8233992 0.7963395 0.7351645
## Cluster 2 0.5507214 0.6603402 0.8022053 0.8772610 0.9331877 0.8860616 0.8259091
## Cluster 3 0.6542894 0.6553305 0.6855716 0.7832794 0.8372255 0.8630397 0.7587007
## Cluster 4 0.5182058 0.5621480 0.5796606 0.5902635 0.6177726 0.6445199 0.5551733
  Cluster 5 0.5247457 0.5430776 0.5703793 0.6453103 0.6414224 0.6819267 0.6775776
                                               20688
                 20685
                           20686
                                     20687
                                                          20689
                                                                    20690
                                                                              20691
## Cluster 1 0.6808873 0.6034111 0.5318196 0.4438780 0.3585995 0.2779509 0.2254456
## Cluster 2 0.7732434 0.7018886 0.5930850 0.4953314 0.4024604 0.3208680 0.2483431
## Cluster 3 0.7076496 0.6771546 0.6285262 0.5709504 0.4884340 0.3862411 0.3339319
## Cluster 4 0.5068412 0.4729097 0.4320830 0.3808592 0.3178484 0.2804368 0.2470397
## Cluster 5 0.7086983 0.6670776 0.6756250 0.6411983 0.5883147 0.5158836 0.4102112
                 20692
                           20693
                                     20694
                                               20695
                                                          20696
                                                                    20697
                                                                              20698
## Cluster 1 0.2029284 0.1790305 0.1773475 0.1719894 0.1636950 0.1581207 0.1622931
## Cluster 2 0.2111202 0.1824927 0.1868680 0.1814252 0.1593196 0.1527361 0.1611378
## Cluster 3 0.2850113 0.2607035 0.2405957 0.2286851 0.2145418 0.2051504 0.2012965
## Cluster 4 0.2546282 0.2441733 0.2212852 0.2188736 0.2346823 0.2693321 0.2827365
## Cluster 5 0.3554224 0.3660129 0.2946336 0.3025733 0.2890345 0.2670086 0.2384440
                           20700
                                     20701
                                                          20703
##
                 20699
                                               20702
                                                                    20704
                                                                              20705
## Cluster 1 0.1676684 0.1663700 0.1706698 0.1903581 0.2380531 0.3020066 0.3646300
## Cluster 2 0.1764076 0.1866950 0.2021994 0.2091320 0.2388798 0.2567273 0.3282610
## Cluster 3 0.2077688 0.2131986 0.2291050 0.2330738 0.2318950 0.2832511 0.3287390
## Cluster 4 0.2384874 0.3042960 0.3414477 0.4154982 0.4863430 0.5402599 0.5717112
## Cluster 5 0.2446466 0.2299267 0.2562112 0.2418836 0.2654397 0.3085690 0.3188707
##
                 20706
                           20707
                                     20708
                                               20709
                                                          20710
                                                                    20711
                                                                              20712
```

```
## Cluster 1 0.4865676 0.5958342 0.7088594 0.6979483 0.7197480 0.6689987 0.6655093
## Cluster 2 0.3643636 0.4056833 0.4856100 0.4744135 0.4201789 0.4798123 0.4833284
## Cluster 3 0.3720496 0.4322000 0.5045447 0.5408426 0.5584879 0.6378156 0.6585887
## Cluster 4 0.5943646 0.5837690 0.5203502 0.5159206 0.5231372 0.5395235 0.5239458
## Cluster 5 0.3478578 0.3620302 0.3851638 0.5035431 0.5088664 0.4711466 0.5115819
                           20714
                                     20715
                                               20716
##
                 20713
                                                         20717
                                                                    20718
## Cluster 1 0.7165703 0.6721552 0.6963422 0.6369814 0.6062029 0.5972679 0.5944589
## Cluster 2 0.4740059 0.4935279 0.5411378 0.4332903 0.4686246 0.4606569 0.4923431
## Cluster 3 0.7130142 0.7398156 0.7262496 0.7056128 0.6785007 0.7105191 0.7001929
## Cluster 4 0.5547040 0.4914116 0.5598159 0.5384874 0.5385668 0.4915235 0.5000975
  Cluster 5 0.4416207 0.4779397 0.4785603 0.4607414 0.4422328 0.4414569 0.4498147
                 20720
                           20721
                                     20722
                                               20723
                                                         20724
                                                                    20725
                                                                              20726
## Cluster 1 0.5895623 0.6329854 0.7010438 0.7995292 0.8852772 0.9522706 0.8948369
## Cluster 2 0.4604340 0.4932815 0.4967947 0.5342434 0.6228651 0.6937214 0.7405982
## Cluster 3 0.6824908 0.6890142 0.7149106 0.7746255 0.8054426 0.7977390 0.7866326
## Cluster 4 0.5473935 0.5643863 0.6478773 0.6753394 0.7087040 0.6586823 0.6123285
## Cluster 5 0.4861897 0.4783319 0.5038750 0.5697716 0.4950690 0.5542586 0.5680086
##
                 20727
                           20728
                                     20729
                                               20730
                                                         20731
                                                                    20732
                                                                              20733
## Cluster 1 0.8389960 0.8493408 0.8060027 0.7925849 0.7593594 0.7236976 0.6534960
## Cluster 2 0.7985220 0.8487009 0.9094751 0.8592111 0.8177537 0.7477214 0.6647390
## Cluster 3 0.8146099 0.8542567 0.8332270 0.8238298 0.8143858 0.8014071 0.7026525
## Cluster 4 0.6364801 0.6440939 0.6768953 0.6474729 0.6313863 0.6022274 0.4974368
## Cluster 5 0.5972888 0.6671853 0.6505991 0.6862716 0.7157543 0.6741379 0.6541595
                 20734
                           20735
                                     20736
                                               20737
                                                         20738
                                                                    20739
## Cluster 1 0.5791737 0.5106021 0.4412706 0.3508554 0.2953462 0.2457387 0.2163329
## Cluster 2 0.6110938 0.6022111 0.4936012 0.3791760 0.3208915 0.2659179 0.2384370
## Cluster 3 0.6575050 0.6460567 0.5762809 0.4789730 0.4200085 0.3594383 0.3278610
## Cluster 4 0.4605740 0.4228881 0.3868628 0.3327473 0.2883213 0.2535993 0.2516462
## Cluster 5 0.6194698 0.6127500 0.5878233 0.5585776 0.4912328 0.4616034 0.3975000
##
                 20741
                           20742
                                     20743
                                               20744
                                                         20745
                                                                    20746
                                                                              20747
## Cluster 1 0.2153992 0.1933833 0.1805265 0.1798992 0.1713024 0.1691233 0.1639125
## Cluster 2 0.1939560 0.1811202 0.1723548 0.1621789 0.1552727 0.1465073 0.1671261
## Cluster 3 0.2863291 0.2608326 0.2401745 0.2398950 0.2287986 0.2164426 0.2208809
## Cluster 4 0.2536968 0.2273827 0.2202238 0.2235054 0.2670217 0.2773141 0.2446426
## Cluster 5 0.3397026 0.3295560 0.3223664 0.2945819 0.2639138 0.2503276 0.2632759
                 20748
                           20749
                                     20750
                                               20751
                                                         20752
                                                                    20753
                                                                              20754
## Cluster 1 0.1713674 0.1832414 0.1941605 0.2193130 0.2596008 0.3226645 0.4155570
## Cluster 2 0.1764252 0.1912434 0.2057830 0.1966276 0.2100938 0.2733548 0.3448182
## Cluster 3 0.2207007 0.2312199 0.2312950 0.2322298 0.2437277 0.2989830 0.3373475
## Cluster 4 0.3189531 0.3159386 0.3639025 0.4492274 0.4492888 0.5117870 0.5713357
## Cluster 5 0.2395905 0.2535000 0.2461509 0.2667543 0.2853233 0.3035819 0.3064052
                 20755
                           20756
                                     20757
                                               20758
                                                         20759
                                                                    20760
                                                                              20761
## Cluster 1 0.5273515 0.6573408 0.6564775 0.7585690 0.7866419 0.7561353 0.8348820
## Cluster 2 0.3852493 0.4957771 0.5225894 0.5237419 0.4892757 0.5668065 0.5591173
## Cluster 3 0.4130170 0.4917504 0.6037149 0.6445362 0.7248071 0.8010113 0.7639418
## Cluster 4 0.5486715 0.5226751 0.6039928 0.6214404 0.6170000 0.6090650 0.6361733
## Cluster 5 0.3713233 0.4114698 0.4533534 0.4475043 0.4498621 0.4993491 0.5211897
                 20762
                           20763
                                     20764
                                               20765
                                                         20766
##
                                                                    20767
                                                                              20768
## Cluster 1 0.8601645 0.8455995 0.8222719 0.7637599 0.7186578 0.7030477 0.6915968
## Cluster 2 0.5065543 0.5264604 0.5122463 0.5592434 0.4934311 0.5375601 0.5494516
## Cluster 3 0.7880879 0.8723716 0.8733574 0.8303078 0.7802043 0.7511532 0.7663773
## Cluster 4 0.6818087 0.6398520 0.5991949 0.5735126 0.5287004 0.5774982 0.5488014
## Cluster 5 0.5346810 0.5295431 0.5201810 0.4803966 0.5031595 0.4557457 0.4667543
##
                 20769
                           20770
                                     20771
                                               20772
                                                         20773
                                                                    20774
                                                                              20775
```

```
## Cluster 1 0.6841207 0.7223263 0.7867149 0.8643077 0.7925902 0.7272825 0.7908541
## Cluster 2 0.5474985 0.5066598 0.5538651 0.6007067 0.6768886 0.7195660 0.7292551
## Cluster 3 0.7716652 0.7305305 0.7524837 0.7647844 0.7735660 0.7718369 0.7817390
## Cluster 4 0.6444657 0.6377726 0.6451227 0.6547581 0.5950903 0.5643141 0.6650758
## Cluster 5 0.4631509 0.4698103 0.4648147 0.4681078 0.4676422 0.5421983 0.5957845
                 20776
                           20777
                                     20778
                                               20779
                                                          20780
                                                                    20781
##
                                                                              20782
## Cluster 1 0.8875027 0.8273647 0.8532281 0.8357281 0.7364947 0.6611233 0.5582480
## Cluster 2 0.8668416 0.9628622 0.9354135 0.8969355 0.8027918 0.7198651 0.6355982
## Cluster 3 0.8433177 0.8745901 0.8511106 0.8777560 0.8439206 0.7543390 0.6702908
## Cluster 4 0.6208917 0.6611986 0.6447870 0.5537690 0.5760758 0.4987329 0.4145848
  Cluster 5 0.6756293 0.7245948 0.7261897 0.7590905 0.7327845 0.6712112 0.6478750
                 20783
                           20784
                                     20785
                                               20786
                                                          20787
                                                                    20788
                                                                              20789
## Cluster 1 0.4402122 0.3631724 0.2967175 0.2421897 0.2106883 0.1843037 0.1769191
## Cluster 2 0.5912463 0.4359824 0.3733079 0.2845044 0.2187243 0.1740411 0.1605249
## Cluster 3 0.6418837 0.5467106 0.4608454 0.3706099 0.3015504 0.2571333 0.2386326
## Cluster 4 0.4006968 0.3258484 0.2901300 0.2350433 0.2200469 0.2154585 0.2196245
## Cluster 5 0.6867931 0.6592241 0.5401853 0.4962069 0.4227845 0.3339224 0.3113147
##
                 20790
                           20791
                                     20792
                                               20793
                                                          20794
                                                                    20795
                                                                              20796
## Cluster 1 0.1723103 0.1605106 0.1631074 0.1642706 0.1741830 0.1754602 0.1889125
## Cluster 2 0.1546100 0.1531701 0.1464575 0.1556628 0.1575630 0.1731202 0.1935103
## Cluster 3 0.2168071 0.2108809 0.2061163 0.1947546 0.1943092 0.2039447 0.2180397
## Cluster 4 0.1987365 0.2239531 0.2275560 0.2467329 0.2750144 0.2558700 0.3800866
## Cluster 5 0.2813707 0.2715776 0.2467586 0.2355819 0.2196810 0.2392543 0.2296724
                 20797
                           20798
                                     20799
                                               20800
                                                          20801
                                                                    20802
## Cluster 1 0.1906034 0.2381432 0.4134032 0.5970133 0.5994377 0.5349576 0.5028912
## Cluster 2 0.2642375 0.3032229 0.4097067 0.4985220 0.4555073 0.3589179 0.3112698
## Cluster 3 0.2552837 0.2836553 0.3767149 0.4313234 0.4929149 0.4636837 0.4384752
## Cluster 4 0.4694657 0.6154296 0.7942816 0.8307040 0.6862022 0.5518845 0.4520830
## Cluster 5 0.2566552 0.2717629 0.3443362 0.4151940 0.4197888 0.3916466 0.3719957
##
                 20804
                           20805
                                     20806
                                               20807
                                                          20808
                                                                    20809
                                                                              20810
## Cluster 1 0.5048979 0.4861512 0.4639867 0.4432175 0.4412056 0.4297162 0.4571631
## Cluster 2 0.2903255 0.2477155 0.2481026 0.2309501 0.2410704 0.2379355 0.2583812
## Cluster 3 0.4438695 0.4655716 0.4540879 0.4816709 0.5171660 0.5248652 0.4993589
## Cluster 4 0.4431119 0.3955271 0.3460144 0.3651011 0.3529603 0.3990000 0.4132852
## Cluster 5 0.3509009 0.2945302 0.3073879 0.3017500 0.2807026 0.3412241 0.3278879
                                     20813
                           20812
                                               20814
                                                          20815
                 20811
                                                                    20816
## Cluster 1 0.4645066 0.4428700 0.4466724 0.4297056 0.4686804 0.5089788 0.5523090
## Cluster 2 0.2671642 0.2533314 0.2518563 0.2474135 0.2773050 0.2588563 0.3194663
## Cluster 3 0.5527716 0.4842440 0.4820085 0.5170766 0.5291234 0.5751957 0.6344766
## Cluster 4 0.4064079 0.3541119 0.4214260 0.4368809 0.4414043 0.4935126 0.5674404
## Cluster 5 0.3912629 0.3415862 0.3287888 0.3188233 0.2993707 0.3148664 0.3313448
                 20818
                           20819
                                     20820
                                               20821
                                                          20822
                                                                              20824
                                                                    20823
## Cluster 1 0.6719310 0.7964509 0.9338780 0.8856724 0.7224642 0.8001008 0.8270000
## Cluster 2 0.3457537 0.4010645 0.4915367 0.6205748 0.6276100 0.7393607 0.8672639
## Cluster 3 0.6888752 0.7195191 0.7566908 0.7126723 0.6540085 0.7225078 0.7843943
## Cluster 4 0.6460469 0.6686173 0.6996498 0.7245379 0.6526101 0.6193141 0.6961769
## Cluster 5 0.3411595 0.4407759 0.4324526 0.4419569 0.4581595 0.4904181 0.5784612
                 20825
                           20826
                                               20828
                                                          20829
##
                                     20827
                                                                    20830
                                                                              20831
## Cluster 1 0.8923103 0.9178780 0.8697851 0.7564629 0.6556485 0.5594973 0.4604907
## Cluster 2 1.0151026 0.9718182 0.8893490 0.8362581 0.7971877 0.7120616 0.5429795
## Cluster 3 0.8280766 0.8720950 0.8658355 0.8159376 0.7666709 0.6922624 0.6399901
## Cluster 4 0.6928339 0.6115054 0.6001408 0.5555632 0.5387473 0.4366643 0.4035957
## Cluster 5 0.5761595 0.6701983 0.7639095 0.7004052 0.6585129 0.6883276 0.7215690
##
                 20832
                           20833
                                     20834
                                               20835
                                                          20836
                                                                    20837
                                                                              20838
```

```
## Cluster 1 0.3758581 0.2826870 0.2252122 0.1909284 0.1714164 0.1625623 0.1562401
## Cluster 2 0.4204575 0.3338358 0.2500968 0.2101173 0.1849677 0.1637155 0.1612023
## Cluster 3 0.5244227 0.4335035 0.3548752 0.2973092 0.2450142 0.2202028 0.2061759
## Cluster 4 0.3412563 0.2630325 0.2268881 0.2057762 0.1988520 0.2086282 0.1953032
## Cluster 5 0.6477284 0.5261078 0.4507069 0.3862069 0.3245431 0.2695603 0.2517328
                 20839
                           20840
                                     20841
                                               20842
                                                          20843
##
                                                                    20844
                                                                              20845
## Cluster 1 0.1592971 0.1562122 0.1550955 0.1651406 0.1624735 0.1842560 0.2058992
## Cluster 2 0.1610587 0.1539531 0.1438680 0.1545572 0.1659472 0.1961701 0.2499707
## Cluster 3 0.1994014 0.1925688 0.2027121 0.1998411 0.2103745 0.2286355 0.2633319
## Cluster 4 0.1893863 0.1931552 0.2370578 0.2631733 0.2445018 0.3651588 0.4895126
  Cluster 5 0.2594440 0.2520129 0.2249138 0.2298103 0.2341767 0.2299440 0.2761595
                           20847
                                     20848
                                               20849
                 20846
                                                          20850
                                                                    20851
                                                                              20852
## Cluster 1 0.2647016 0.3942692 0.5561406 0.5821459 0.5178302 0.4906194 0.5330981
## Cluster 2 0.3060147 0.4779120 0.4744721 0.4875220 0.3454399 0.3010059 0.2805513
## Cluster 3 0.2954014 0.3590454 0.4377957 0.4855135 0.4623801 0.4125887 0.4000184
## Cluster 4 0.5983430 0.8421769 0.8454188 0.6437798 0.5614440 0.4933285 0.4669711
## Cluster 5 0.2998190 0.3964353 0.4714052 0.4161940 0.4065000 0.3718879 0.3051078
##
                 20853
                           20854
                                     20855
                                               20856
                                                          20857
                                                                    20858
                                                                              20859
## Cluster 1 0.5155942 0.5075504 0.4412639 0.4246286 0.4056472 0.4510968 0.4455212
## Cluster 2 0.2732434 0.2489648 0.2144545 0.2164545 0.2353402 0.2445015 0.2754311
## Cluster 3 0.4305773 0.4291489 0.4478113 0.4416468 0.4303830 0.4424837 0.5056865
## Cluster 4 0.4000361 0.3540505 0.3638845 0.3694079 0.3868881 0.4184116 0.3976859
## Cluster 5 0.3229397 0.3003276 0.3196595 0.2944095 0.3323448 0.3248233 0.3399914
                 20860
                           20861
                                     20862
                                               20863
                                                          20864
                                                                    20865
## Cluster 1 0.4627162 0.4354337 0.4284257 0.4552347 0.4999390 0.5559867 0.6906406
## Cluster 2 0.2717067 0.2607947 0.2663548 0.2969619 0.3163402 0.3313871 0.3993021
## Cluster 3 0.4799319 0.4818014 0.4936028 0.5696043 0.5700014 0.6282184 0.7088723
## Cluster 4 0.3717545 0.4083285 0.4060108 0.4289711 0.4627437 0.5496101 0.6730758
## Cluster 5 0.3313578 0.3159914 0.3006595 0.3682672 0.3294828 0.3423879 0.3285862
##
                 20867
                           20868
                                     20869
                                               20870
                                                          20871
                                                                    20872
                                                                              20873
## Cluster 1 0.8169257 0.9041485 0.9033554 0.7614894 0.8042228 0.8401499 0.9080385
## Cluster 2 0.4688006 0.4659501 0.6473314 0.7401466 0.8485513 1.0214516 1.0148358
## Cluster 3 0.7391631 0.7609348 0.7316298 0.6819007 0.7615957 0.7917418 0.8420752
## Cluster 4 0.7361047 0.6817148 0.6275199 0.6436318 0.6523069 0.6422310 0.6512527
  Cluster 5 0.3986509 0.4502414 0.3880862 0.4733233 0.4865431 0.5269009 0.5722931
                                     20876
                           20875
                                               20877
                 20874
                                                          20878
                                                                    20879
                                                                              20880
## Cluster 1 0.8867202 0.8438422 0.7454576 0.6596671 0.5449098 0.4588435 0.3616645
## Cluster 2 0.9580557 0.9248211 0.8571818 0.7404311 0.6462903 0.5583284 0.4256569
## Cluster 3 0.8995674 0.8685943 0.8046440 0.7729092 0.6529333 0.5725121 0.4951674
## Cluster 4 0.6549819 0.6490578 0.6327112 0.5047256 0.4577256 0.4442455 0.3277762
## Cluster 5 0.6505129 0.6765776 0.6826552 0.6916724 0.6420474 0.6528966 0.5588879
                 20881
                           20882
                                     20883
                                               20884
                                                          20885
                                                                    20886
                                                                              20887
## Cluster 1 0.2667825 0.2099615 0.1916538 0.1733727 0.1670995 0.1620265 0.1557971
## Cluster 2 0.3185249 0.2578563 0.2199971 0.1807654 0.1788094 0.1654692 0.1639062
## Cluster 3 0.4034255 0.3260652 0.2760624 0.2471759 0.2194227 0.2066043 0.2036652
## Cluster 4 0.2616715 0.2543502 0.2098917 0.2040072 0.2191516 0.1965018 0.2031480
## Cluster 5 0.4854224 0.4320216 0.3885517 0.3200905 0.2805862 0.2556853 0.2486207
                           20889
                                     20890
                                               20891
##
                 20888
                                                          20892
                                                                    20893
                                                                              20894
## Cluster 1 0.1578382 0.1535106 0.1618820 0.1714973 0.1950040 0.1985093 0.2569748
## Cluster 2 0.1552258 0.1558446 0.1554047 0.1883724 0.2189179 0.2965689 0.3442141
## Cluster 3 0.2036894 0.2075348 0.2054738 0.2146057 0.2144383 0.2762780 0.2978738
## Cluster 4 0.1980614 0.2437581 0.2685054 0.2631588 0.3780433 0.4668484 0.6117942
## Cluster 5 0.2324871 0.2496767 0.2146509 0.2350690 0.2461509 0.2536552 0.2621121
##
                 20895
                           20896
                                     20897
                                               20898
                                                          20899
                                                                    20900
                                                                              20901
```

```
## Cluster 1 0.4051034 0.6211101 0.5813806 0.5115650 0.4908820 0.5072958 0.4777984
## Cluster 2 0.4822786 0.5067947 0.4387830 0.3261789 0.2595132 0.2768240 0.2169560
## Cluster 3 0.4001404 0.4286057 0.4604057 0.4460312 0.4289277 0.4253915 0.4113844
## Cluster 4 0.7807798 0.7970758 0.7090939 0.5038953 0.4737978 0.4215307 0.3878412
## Cluster 5 0.3444828 0.4160776 0.4039655 0.4028491 0.3510819 0.3271767 0.3178879
                 20902
                           20903
                                     20904
                                               20905
                                                          20906
                                                                    20907
##
                                                                              20908
## Cluster 1 0.4482971 0.4316684 0.4204138 0.4364045 0.4581777 0.4569045 0.4519536
## Cluster 2 0.2355279 0.2289413 0.2520792 0.2436422 0.2354809 0.2625279 0.2513109
## Cluster 3 0.4508823 0.4544794 0.4796142 0.4829064 0.5304667 0.5110610 0.4542723
## Cluster 4 0.3635884 0.3994513 0.4016354 0.4066931 0.3702202 0.4114549 0.4111697
  Cluster 5 0.3094957 0.3343578 0.3158017 0.3201336 0.3458664 0.3403362 0.3196509
                           20910
                                     20911
                                               20912
                 20909
                                                          20913
                                                                    20914
                                                                              20915
## Cluster 1 0.4251273 0.4190318 0.4390491 0.5068541 0.5657149 0.7041167 0.8341194
## Cluster 2 0.2602375 0.2523812 0.2615220 0.2483666 0.3378475 0.4374194 0.4372551
## Cluster 3 0.4638241 0.4950723 0.5167532 0.5537504 0.6559617 0.7427418 0.7400865
## Cluster 4 0.3832563 0.3690505 0.4011300 0.4136968 0.5966354 0.6554440 0.7258845
## Cluster 5 0.3078578 0.3375603 0.3666207 0.3577974 0.3816552 0.3951379 0.3937198
##
                 20916
                           20917
                                     20918
                                               20919
                                                          20920
                                                                    20921
                                                                              20922
## Cluster 1 0.8661472 0.8743727 0.8000756 0.8564231 0.8709032 0.9535875 0.9026950
## Cluster 2 0.5300850 0.5730469 0.6775249 0.7941554 0.9755484 0.9467478 0.9923666
## Cluster 3 0.7459532 0.7070227 0.6928213 0.7637121 0.8254865 0.9133007 0.8988525
## Cluster 4 0.7206643 0.6616751 0.5557256 0.5823285 0.6317473 0.6825090 0.6612238
## Cluster 5 0.4815345 0.5138190 0.5060991 0.5877414 0.5973190 0.6742629 0.7308319
                 20923
                           20924
                                     20925
                                               20926
                                                          20927
                                                                    20928
## Cluster 1 0.8792944 0.7744867 0.6694682 0.5677971 0.4866658 0.3780809 0.3140106
## Cluster 2 0.9846422 0.8629296 0.7927918 0.6981701 0.5760088 0.4511818 0.3577478
## Cluster 3 0.8963177 0.7917957 0.7371433 0.6622809 0.6432340 0.5482851 0.4421589
## Cluster 4 0.6665162 0.6013682 0.5137004 0.4374188 0.3639928 0.3214043 0.2836426
## Cluster 5 0.6957759 0.6747888 0.7217155 0.7327371 0.7329914 0.6130172 0.5236983
##
                 20930
                           20931
                                     20932
                                               20933
                                                          20934
                                                                    20935
                                                                              20936
## Cluster 1 0.2460292 0.1968302 0.1771061 0.1689841 0.1675318 0.1660411 0.1627944
## Cluster 2 0.2791760 0.2175425 0.1956100 0.1738152 0.1667185 0.1476686 0.1448651
## Cluster 3 0.3524752 0.2739121 0.2400440 0.2277660 0.2068809 0.2021546 0.2028468
## Cluster 4 0.2474404 0.2174549 0.2151552 0.2228159 0.2069314 0.2047653 0.2040866
## Cluster 5 0.4495302 0.3589612 0.3174914 0.3092543 0.2931983 0.3060647 0.2861293
                                     20939
                           20938
                                               20940
                 20937
                                                          20941
                                                                    20942
## Cluster 1 0.1658488 0.1637321 0.1760371 0.1945968 0.2032334 0.2628846 0.4004735
## Cluster 2 0.1497214 0.1471378 0.1684868 0.1952551 0.2529032 0.3271496 0.4595484
## Cluster 3 0.1942709 0.2000468 0.2001206 0.2203787 0.2668681 0.3048922 0.3680567
## Cluster 4 0.2542852 0.2606751 0.2924513 0.3643538 0.4646534 0.6294152 0.8296318
## Cluster 5 0.2874353 0.2424267 0.2541250 0.2895733 0.2893362 0.3087500 0.3969612
                 20944
                           20945
                                     20946
                                               20947
                                                          20948
                                                                    20949
                                                                              20950
## Cluster 1 0.5797958 0.5697626 0.5347334 0.5052175 0.4996061 0.4638621 0.4633090
## Cluster 2 0.4924575 0.4649062 0.3846364 0.3022170 0.2483548 0.2358299 0.2503519
## Cluster 3 0.4670369 0.4593574 0.4470312 0.4126752 0.4237362 0.4529830 0.4396738
## Cluster 4 0.8102744 0.6778556 0.5814982 0.4805307 0.3756751 0.3749675 0.3325054
## Cluster 5 0.4482328 0.4605517 0.4017931 0.3808491 0.3460690 0.3872543 0.3798750
                           20952
                                     20953
                                               20954
                                                          20955
##
                 20951
                                                                    20956
                                                                              20957
## Cluster 1 0.4167520 0.4135650 0.4246870 0.4586366 0.4427666 0.4127003 0.4360570
## Cluster 2 0.2513490 0.2239531 0.2403226 0.2778240 0.2954839 0.2568710 0.2583988
## Cluster 3 0.4298723 0.4334596 0.4627475 0.4648525 0.4870511 0.4905830 0.5101177
## Cluster 4 0.3430036 0.3527365 0.3723827 0.3650325 0.3408303 0.3545848 0.3523394
## Cluster 5 0.3723922 0.3242543 0.3181681 0.3314612 0.3619612 0.3515043 0.3486853
##
                 20958
                           20959
                                     20960
                                               20961
                                                          20962
                                                                    20963
                                                                              20964
```

```
## Cluster 1 0.4317613 0.4228263 0.4840650 0.5475000 0.6515080 0.7693435 0.9184257
## Cluster 2 0.2502082 0.2446334 0.2500205 0.2906012 0.3557683 0.4232375 0.4721144
## Cluster 3 0.4662979 0.5073489 0.5691418 0.6530965 0.6945957 0.6864270 0.7030993
## Cluster 4 0.3967292 0.4644224 0.4432744 0.5393935 0.5894116 0.6133755 0.6838051
## Cluster 5 0.3452155 0.2996724 0.3048147 0.3805216 0.3812198 0.3884655 0.3926810
                 20965
                           20966
                                     20967
                                               20968
                                                         20969
                                                                    20970
## Cluster 1 0.8581804 0.8094271 0.8591167 0.9122387 0.9318196 0.8780159 0.8184589
## Cluster 2 0.6542023 0.7584399 0.8376422 0.9106452 0.9728387 0.9032199 0.9329677
## Cluster 3 0.7409688 0.7356014 0.7633248 0.8174709 0.8067830 0.8345291 0.8469901
## Cluster 4 0.6373032 0.5783141 0.5515812 0.6555271 0.6340722 0.6050181 0.5944874
  Cluster 5 0.4143578 0.4506638 0.5278060 0.5983319 0.6555345 0.6339957 0.6899483
                           20973
                                     20974
                                               20975
                 20972
                                                         20976
                                                                    20977
                                                                              20978
## Cluster 1 0.7607467 0.6738515 0.5978833 0.4580995 0.3754934 0.2715000 0.2275650
## Cluster 2 0.7813167 0.7419677 0.6418475 0.5324897 0.3969648 0.3101496 0.2543724
## Cluster 3 0.8277915 0.7778312 0.6771716 0.6449092 0.5373234 0.4352511 0.3605546
## Cluster 4 0.5424332 0.4829242 0.4362238 0.4044404 0.3276751 0.2930830 0.2419819
## Cluster 5 0.6688060 0.6547629 0.6278750 0.7052457 0.6463750 0.5321724 0.4439526
##
                 20979
                           20980
                                     20981
                                               20982
                                                         20983
                                                                    20984
                                                                              20985
## Cluster 1 0.1920385 0.1773846 0.1695650 0.1612759 0.1562639 0.1533462 0.1495451
## Cluster 2 0.1980704 0.1687683 0.1563548 0.1573695 0.1570293 0.1449677 0.1554428
## Cluster 3 0.2976468 0.2544879 0.2346936 0.2189390 0.1992766 0.1999035 0.1874284
## Cluster 4 0.2325415 0.2154224 0.2192022 0.2082527 0.2073827 0.1969134 0.2382744
## Cluster 5 0.3538103 0.3127155 0.2883793 0.2736207 0.2768664 0.2422457 0.2317198
                 20986
                           20987
                                     20988
                                               20989
                                                         20990
                                                                    20991
## Cluster 1 0.1673488 0.1632905 0.1743090 0.19111114 0.2545597 0.3989390 0.5739801
## Cluster 2 0.1496921 0.1606598 0.1881760 0.2568006 0.2893079 0.4445367 0.5059472
## Cluster 3 0.2011773 0.2057305 0.2156355 0.2458397 0.2927858 0.3557319 0.4381986
## Cluster 4 0.2815596 0.2701155 0.3519567 0.4617112 0.5726931 0.7815884 0.8392022
## Cluster 5 0.2230819 0.2373448 0.2493362 0.2648190 0.2946078 0.3789914 0.4344224
                 20993
                           20994
                                     20995
                                               20996
                                                         20997
                                                                    20998
                                                                              20999
## Cluster 1 0.6114549 0.5364058 0.5018714 0.5071963 0.5228382 0.4699854 0.4430782
## Cluster 2 0.4852727 0.3849296 0.2840411 0.2981818 0.3196041 0.2918094 0.2776657
## Cluster 3 0.4473319 0.4086213 0.4562043 0.4389135 0.4639929 0.4428397 0.4663489
## Cluster 4 0.6798664 0.5644079 0.4430000 0.3563755 0.4187617 0.3804224 0.3764982
## Cluster 5 0.4486810 0.3755776 0.3483319 0.3030388 0.3559526 0.3718621 0.3401897
                                               21003
                 21000
                           21001
                                     21002
                                                         21004
                                                                    21005
## Cluster 1 0.4375305 0.4214284 0.4473886 0.4274111 0.3985716 0.4104456 0.4106034
## Cluster 2 0.2507478 0.2452023 0.2671906 0.2792023 0.2438944 0.2317009 0.2522991
## Cluster 3 0.4730936 0.4436809 0.5226596 0.5122794 0.5035801 0.5052426 0.5123149
## Cluster 4 0.3440722 0.3799531 0.3944513 0.4025054 0.3838339 0.4017292 0.3760939
## Cluster 5 0.3140043 0.3478017 0.3952543 0.3380991 0.2949655 0.3050086 0.3194095
                 21007
                           21008
                                     21009
                                               21010
                                                         21011
                                                                    21012
                                                                              21013
## Cluster 1 0.4602135 0.4956870 0.5347772 0.6513475 0.7760796 0.8063183 0.8349072
## Cluster 2 0.2708035 0.2811730 0.3329326 0.3961935 0.3543548 0.4036305 0.5999707
## Cluster 3 0.5369121 0.5938170 0.6461191 0.6751206 0.6878170 0.6970582 0.7098837
## Cluster 4 0.4017798 0.4867798 0.5940217 0.6744910 0.6425848 0.6309567 0.6112780
## Cluster 5 0.3408405 0.2947198 0.3603664 0.3692802 0.3715517 0.4202759 0.4299397
                           21015
                                     21016
##
                 21014
                                               21017
                                                         21018
                                                                    21019
                                                                              21020
## Cluster 1 0.7492905 0.7590225 0.7978541 0.8285650 0.8125756 0.7858289 0.7227109
## Cluster 2 0.7089120 0.7949765 0.9281760 0.9292874 0.9207771 0.8365924 0.8341760
## Cluster 3 0.6706865 0.7050936 0.7378000 0.8164397 0.8385830 0.8333943 0.7612128
## Cluster 4 0.5262708 0.5682852 0.6167906 0.6066787 0.5626534 0.5869134 0.5574477
## Cluster 5 0.4509871 0.5369784 0.6040560 0.6268319 0.6262500 0.6553233 0.6851897
##
                 21021
                           21022
                                     21023
                                               21024
                                                         21025
                                                                    21026
```

```
## Cluster 1 0.6273541 0.5583435 0.5130159 0.4396512 0.3429164 0.2643183 0.2231552
## Cluster 2 0.8002903 0.7015601 0.6108065 0.5628123 0.4238182 0.3120352 0.2613871
## Cluster 3 0.7176099 0.6867277 0.6290752 0.5544128 0.4902681 0.3991745 0.3418099
## Cluster 4 0.5217942 0.4808267 0.4070289 0.3849242 0.2974116 0.2701083 0.2597942
## Cluster 5 0.6684914 0.6568793 0.6742802 0.6457457 0.5486552 0.4490259 0.4180043
                 21028
                           21029
                                                         21032
##
                                     21030
                                               21031
                                                                    21033
## Cluster 1 0.1966008 0.1815040 0.1736764 0.1684907 0.1623488 0.1658740 0.1615385
## Cluster 2 0.2245220 0.1990440 0.1771408 0.1719795 0.1625953 0.1601935 0.1642493
## Cluster 3 0.2945234 0.2553447 0.2228738 0.2135376 0.2117830 0.2007872 0.1923759
## Cluster 4 0.2377834 0.2351588 0.2120181 0.2224549 0.2119242 0.2405126 0.2711264
  Cluster 5 0.3551164 0.3224741 0.2835388 0.2785388 0.2616250 0.2267629 0.2276164
                           21036
                                     21037
                                               21038
                 21035
                                                         21039
                                                                    21040
                                                                              21041
## Cluster 1 0.1644841 0.1759987 0.1825862 0.1938528 0.2297427 0.2871432 0.3755411
## Cluster 2 0.1740293 0.1990968 0.2102610 0.2147361 0.2562845 0.3141466 0.3751261
## Cluster 3 0.2002454 0.2098369 0.2347518 0.2410397 0.2252851 0.2549277 0.3197688
## Cluster 4 0.2696282 0.3460794 0.3684838 0.4010361 0.4786715 0.5576931 0.6291372
## Cluster 5 0.2234655 0.2361034 0.2627457 0.2447931 0.2843621 0.3190733 0.3766681
##
                 21042
                           21043
                                     21044
                                               21045
                                                         21046
                                                                    21047
                                                                              21048
## Cluster 1 0.4811897 0.5590584 0.6680531 0.7303170 0.6502493 0.6482427 0.6267268
## Cluster 2 0.3698534 0.4502991 0.4946012 0.4624487 0.5149648 0.4855044 0.4930235
## Cluster 3 0.3756255 0.4483560 0.4754823 0.5055135 0.5895631 0.6155348 0.6541064
## Cluster 4 0.6508448 0.5636318 0.5545018 0.4931877 0.5155523 0.5595596 0.5383502
## Cluster 5 0.3388405 0.3623491 0.3741983 0.4082457 0.4324440 0.4353879 0.4279957
                 21049
                           21050
                                     21051
                                               21052
                                                         21053
                                                                    21054
## Cluster 1 0.6296963 0.6839509 0.6845093 0.6371300 0.6040027 0.6094085 0.5856698
## Cluster 2 0.5332962 0.5079032 0.5014135 0.5116686 0.5203812 0.4437683 0.4233548
## Cluster 3 0.6872894 0.6728099 0.6483362 0.6851972 0.6726936 0.6553376 0.6246979
## Cluster 4 0.5291300 0.5332058 0.5318736 0.5300830 0.4611877 0.4808303 0.5202744
## Cluster 5 0.4502802 0.4528319 0.4075172 0.4542026 0.4303405 0.4095776 0.4577112
##
                 21056
                           21057
                                     21058
                                               21059
                                                         21060
                                                                    21061
                                                                              21062
## Cluster 1 0.5618170 0.5920239 0.6287971 0.7505358 0.8647798 0.9042520 0.8695279
## Cluster 2 0.4135308 0.4983900 0.5045132 0.5324545 0.6093255 0.7733754 0.8523988
## Cluster 3 0.6209631 0.6567972 0.6596213 0.6944184 0.7242525 0.7677220 0.7742596
## Cluster 4 0.4880361 0.5176173 0.5787148 0.6179783 0.7043177 0.6635957 0.6595126
  Cluster 5 0.3897888 0.4455862 0.3958966 0.3820603 0.4622371 0.4955647 0.5932974
                           21064
                 21063
                                     21065
                                               21066
                                                         21067
                                                                    21068
                                                                              21069
## Cluster 1 0.8750212 0.8871538 0.8366897 0.8045756 0.7668700 0.6949668 0.6195053
## Cluster 2 0.8721672 0.9526246 0.8659326 0.9063519 0.8260792 0.7275161 0.6481173
## Cluster 3 0.7810496 0.8094298 0.8577858 0.8651560 0.8642780 0.7692255 0.7058270
## Cluster 4 0.5987762 0.6517473 0.6880542 0.6538845 0.6684982 0.5575957 0.5124296
## Cluster 5 0.6070690 0.6140129 0.6602241 0.7179310 0.7046466 0.6661078 0.6694741
                 21070
                           21071
                                     21072
                                               21073
                                                         21074
                                                                    21075
                                                                              21076
## Cluster 1 0.5574390 0.5011817 0.4193607 0.3405610 0.2769284 0.2348886 0.2222202
## Cluster 2 0.6140704 0.5476422 0.5003050 0.4004194 0.3050616 0.2596862 0.2163695
## Cluster 3 0.6720723 0.6475262 0.5896085 0.4974170 0.4221504 0.3431007 0.3229773
## Cluster 4 0.4484116 0.4157978 0.3643574 0.3425921 0.2949639 0.2611372 0.2540036
## Cluster 5 0.6372328 0.6245647 0.6294052 0.5395000 0.4881379 0.4089310 0.3695129
                           21078
                                               21080
##
                 21077
                                     21079
                                                         21081
                                                                    21082
                                                                              21083
## Cluster 1 0.1870531 0.1793621 0.1775013 0.1749682 0.1699854 0.1623660 0.1587109
## Cluster 2 0.1989326 0.1899355 0.1776012 0.1722669 0.1737390 0.1630411 0.1646833
## Cluster 3 0.2771305 0.2717461 0.2326199 0.2247007 0.2089163 0.2064596 0.2039390
## Cluster 4 0.2468267 0.2288014 0.2252202 0.2171913 0.2533430 0.2544982 0.2465271
## Cluster 5 0.3425560 0.3241034 0.2969095 0.2623147 0.2475733 0.2297414 0.2254224
##
                 21084
                           21085
                                     21086
                                               21087
                                                         21088
                                                                    21089
                                                                              21090
```

```
## Cluster 1 0.1651446 0.1705398 0.1877825 0.2100371 0.2589761 0.3309072 0.4219403
## Cluster 2 0.1890968 0.1779384 0.2004018 0.1950293 0.2376422 0.2733226 0.3033490
## Cluster 3 0.2157362 0.2246454 0.2189489 0.2187589 0.2315773 0.2700411 0.3078482
## Cluster 4 0.3019747 0.3238123 0.3157256 0.3799711 0.4269495 0.4999278 0.5701444
## Cluster 5 0.2338405 0.2512198 0.2387069 0.2682414 0.2799483 0.2884698 0.2922500
                 21091
                           21092
                                               21094
                                                         21095
                                                                    21096
                                     21093
                                                                              21097
## Cluster 1 0.5183528 0.6393249 0.7263647 0.7285995 0.7236645 0.7573647 0.8330451
## Cluster 2 0.3409032 0.4426041 0.4387859 0.5005543 0.5527859 0.5151554 0.5577243
## Cluster 3 0.3669589 0.4873915 0.5238468 0.6137092 0.6742539 0.7506028 0.7970851
## Cluster 4 0.5374585 0.5603141 0.6144152 0.6719278 0.5568375 0.6323899 0.6617762
  Cluster 5 0.3232155 0.3436422 0.4194741 0.4639267 0.5120560 0.4557026 0.5133750
                           21099
                                     21100
                                               21101
                 21098
                                                         21102
                                                                    21103
                                                                              21104
## Cluster 1 0.8093846 0.7872003 0.7472082 0.6911724 0.6475013 0.6074509 0.5828886
## Cluster 2 0.5468006 0.5629326 0.5361114 0.5062053 0.4885543 0.4734135 0.4198827
## Cluster 3 0.8148922 0.8101390 0.7602610 0.7600610 0.6956028 0.6831617 0.6929007
## Cluster 4 0.6944585 0.7103538 0.6187256 0.5626751 0.5291300 0.5339422 0.5749495
## Cluster 5 0.5090647 0.4633362 0.5104267 0.4514784 0.4468017 0.4476207 0.4751250
##
                 21105
                           21106
                                     21107
                                               21108
                                                         21109
                                                                    21110
                                                                              21111
## Cluster 1 0.5820385 0.6379735 0.6483687 0.7560928 0.8201512 0.8613037 0.8186194
## Cluster 2 0.4294018 0.4786569 0.5351408 0.5965337 0.7128270 0.7333988 0.8381848
## Cluster 3 0.6534454 0.6613177 0.6550426 0.6945489 0.7077816 0.7089518 0.7432780
## Cluster 4 0.6168917 0.6065921 0.6382274 0.7442924 0.6868917 0.6924116 0.6904910
## Cluster 5 0.4772802 0.4534353 0.4427198 0.5115431 0.5508147 0.5526034 0.6061595
                 21112
                           21113
                                     21114
                                               21115
                                                         21116
                                                                    21117
## Cluster 1 0.8911897 0.9124271 0.8258886 0.8093183 0.7033395 0.6482003 0.5722440
## Cluster 2 0.9348211 1.0015982 0.9589971 0.9438651 0.8388680 0.7709120 0.6570029
## Cluster 3 0.8469291 0.8468227 0.8425064 0.8368681 0.8035574 0.7339262 0.6472128
## Cluster 4 0.7065379 0.6852527 0.6294296 0.6048520 0.5253682 0.4570397 0.4813466
## Cluster 5 0.6897888 0.6798578 0.7282629 0.7536897 0.7105302 0.7054655 0.6587672
##
                 21119
                           21120
                                     21121
                                               21122
                                                         21123
                                                                    21124
                                                                              21125
## Cluster 1 0.4801286 0.3547069 0.2664576 0.2149138 0.1923501 0.1711194 0.1604072
## Cluster 2 0.5493021 0.4517126 0.3145367 0.2480469 0.2117155 0.1753490 0.1513754
## Cluster 3 0.6042440 0.4937035 0.4082028 0.3192539 0.2825149 0.2426482 0.2131135
## Cluster 4 0.4265307 0.3431986 0.2788484 0.2487726 0.2410433 0.2322166 0.2267942
## Cluster 5 0.6499698 0.6322629 0.5086379 0.4380517 0.4107112 0.3474741 0.3133966
                           21127
                 21126
                                     21128
                                                         21130
                                               21129
                                                                    21131
                                                                              21132
## Cluster 1 0.1617599 0.1560531 0.1515597 0.1527785 0.1538183 0.1745464 0.1826936
## Cluster 2 0.1444633 0.1419472 0.1439326 0.1471965 0.1459560 0.1588299 0.1951701
## Cluster 3 0.2060553 0.1988355 0.1948426 0.1867149 0.1827177 0.1904454 0.2061092
## Cluster 4 0.1992202 0.2110181 0.2033285 0.2263466 0.2440072 0.2641155 0.3602310
## Cluster 5 0.2763405 0.2683103 0.2474483 0.2364914 0.2169569 0.2205690 0.2268750
                 21133
                           21134
                                     21135
                                               21136
                                                         21137
                                                                    21138
                                                                              21139
## Cluster 1 0.1992308 0.2417745 0.3759615 0.5592454 0.5498952 0.5438700 0.5147135
## Cluster 2 0.2790411 0.2895103 0.4270176 0.4969971 0.4316891 0.3706129 0.2888680
## Cluster 3 0.2466411 0.2756496 0.3509716 0.3968298 0.4629234 0.4200723 0.4124610
## Cluster 4 0.4419386 0.5721011 0.8164946 0.7763466 0.6714296 0.5098484 0.4429783
## Cluster 5 0.2614526 0.2707586 0.4017629 0.4630474 0.4054784 0.3682371 0.3656983
##
                 21140
                           21141
                                     21142
                                               21143
                                                         21144
                                                                    21145
                                                                              21146
## Cluster 1 0.5159271 0.4792944 0.4630584 0.4572281 0.4250053 0.4610199 0.4680146
## Cluster 2 0.2835132 0.2725044 0.2479179 0.2187654 0.2616276 0.2270674 0.2425513
## Cluster 3 0.3879390 0.4521475 0.4615858 0.4542241 0.4631617 0.4510128 0.4984000
## Cluster 4 0.4332744 0.4017040 0.3863285 0.3628953 0.4067870 0.4357798 0.4015921
## Cluster 5 0.3043103 0.2833578 0.3138060 0.3199828 0.3206853 0.2947371 0.3256293
##
                 21147
                           21148
                                     21149
                                               21150
                                                         21151
                                                                    21152
                                                                              21153
```

```
## Cluster 1 0.4680836 0.4264642 0.4338170 0.4221286 0.4424244 0.5033952 0.5927069
## Cluster 2 0.2616393 0.2453109 0.2342287 0.2680381 0.2690205 0.2883050 0.3117243
## Cluster 3 0.5548312 0.4873716 0.5077688 0.5157220 0.5690454 0.6107688 0.6939291
## Cluster 4 0.3996426 0.3743718 0.3720794 0.3797798 0.4615018 0.4725379 0.5716859
## Cluster 5 0.3463017 0.3135043 0.2987716 0.2901422 0.3332716 0.3211853 0.3211767
                           21155
                                                          21158
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                                     21156
                                               21157
                                                                    21159
                                                                              21160
## Cluster 1 0.7323342 0.8633382 0.9240053 0.8626857 0.8210385 0.8474483 0.9533090
## Cluster 2 0.3802903 0.4340176 0.5170909 0.6054839 0.7426979 0.9115103 0.9469384
## Cluster 3 0.7274709 0.7162936 0.7223730 0.7579163 0.7075972 0.7819986 0.8592071
## Cluster 4 0.6404765 0.6967762 0.6796787 0.6343610 0.6493249 0.7104296 0.6940722
  Cluster 5 0.3427543 0.4132371 0.4653534 0.5042026 0.5105819 0.5894784 0.6276724
                           21162
                                     21163
                                               21164
                 21161
                                                          21165
                                                                    21166
                                                                              21167
## Cluster 1 0.8897268 0.8455716 0.8426048 0.7617639 0.6863674 0.5565332 0.4573992
## Cluster 2 1.0393109 1.0214106 1.0486804 0.8482287 0.7673930 0.6932229 0.5602786
## Cluster 3 0.8625291 0.8671972 0.8536993 0.7799376 0.7738809 0.7260270 0.6406610
## Cluster 4 0.7014621 0.6754513 0.6556245 0.5976354 0.5486931 0.4572599 0.4002599
## Cluster 5 0.7073922 0.6844612 0.6967845 0.6926121 0.7009181 0.6653319 0.7144397
##
                 21168
                           21169
                                     21170
                                               21171
                                                          21172
                                                                    21173
                                                                              21174
## Cluster 1 0.3694085 0.2834615 0.2156910 0.1909602 0.1638130 0.1622308 0.1499523
## Cluster 2 0.4397009 0.2987449 0.2238094 0.2019619 0.1704340 0.1525924 0.1490733
## Cluster 3 0.5389121 0.4106624 0.3420865 0.2804681 0.2497816 0.2291390 0.2069986
## Cluster 4 0.3488989 0.2653321 0.2452238 0.2223827 0.2141877 0.2156065 0.2019856
## Cluster 5 0.6296509 0.5425259 0.4758534 0.3973793 0.3155345 0.2860733 0.2479440
                 21175
                           21176
                                     21177
                                               21178
                                                          21179
                                                                    21180
## Cluster 1 0.1574363 0.1551645 0.1538581 0.1485637 0.1592812 0.1730398 0.2054390
## Cluster 2 0.1514927 0.1489707 0.1428182 0.1514223 0.1626716 0.1745718 0.2589179
## Cluster 3 0.2023376 0.2022255 0.2006014 0.1934638 0.2005106 0.2181702 0.2448752
## Cluster 4 0.2003177 0.1931588 0.2251588 0.2447256 0.2610830 0.3293899 0.4537401
## Cluster 5 0.2798750 0.2457026 0.2325172 0.2254483 0.2287241 0.2258664 0.2303233
##
                 21182
                           21183
                                     21184
                                               21185
                                                          21186
                                                                    21187
                                                                              21188
## Cluster 1 0.2482202 0.4067639 0.5469708 0.5608196 0.5229151 0.5093846 0.4719337
## Cluster 2 0.3032551 0.4174457 0.4821466 0.4216716 0.3429795 0.3126129 0.2622845
## Cluster 3 0.2774000 0.3540496 0.4209830 0.4729461 0.4862610 0.4302681 0.4213972
## Cluster 4 0.6080000 0.8751986 0.8458773 0.7384657 0.6291769 0.4923863 0.3814874
## Cluster 5 0.2487328 0.3512112 0.4477586 0.4185862 0.3909655 0.3504612 0.3179353
                           21190
                 21189
                                               21192
                                                          21193
                                     21191
                                                                    21194
                                                                              21195
## Cluster 1 0.4467745 0.4214483 0.4348873 0.4264178 0.4263554 0.4460557 0.4555796
## Cluster 2 0.2373724 0.2341378 0.2391114 0.2445132 0.2508152 0.2787595 0.2776774
## Cluster 3 0.4140213 0.4339688 0.4551589 0.4739929 0.5057943 0.5190000 0.5586000
## Cluster 4 0.3752202 0.3896282 0.3744404 0.3328412 0.3684946 0.4247473 0.4044007
## Cluster 5 0.3394871 0.2774871 0.2868147 0.3052586 0.3283405 0.3253534 0.3179784
                 21196
                           21197
                                     21198
                                               21199
                                                          21200
                                                                    21201
                                                                              21202
## Cluster 1 0.4399841 0.4367560 0.4555517 0.4938064 0.5169987 0.5811830 0.7625066
## Cluster 2 0.2891085 0.2619765 0.2417801 0.2653548 0.2791525 0.3395953 0.3926569
## Cluster 3 0.5497972 0.5141702 0.5448950 0.5741404 0.6364383 0.6871362 0.8137078
## Cluster 4 0.3858267 0.4212130 0.4090361 0.4350722 0.4680614 0.6073863 0.6402816
## Cluster 5 0.2751034 0.2525043 0.2942888 0.3216853 0.3112888 0.3795905 0.4350948
                           21204
                                               21206
##
                 21203
                                     21205
                                                          21207
                                                                    21208
                                                                              21209
## Cluster 1 0.9056207 0.9941804 0.9235013 0.8417268 0.8783103 0.9242546 0.9294403
## Cluster 2 0.4538270 0.5411642 0.7104106 0.7482903 0.8509472 0.9368856 1.0254311
## Cluster 3 0.7121177 0.7028894 0.7684766 0.7246184 0.7947773 0.8555489 0.8542695
## Cluster 4 0.6294621 0.7322924 0.7033430 0.6517978 0.6427220 0.7035523 0.6587617
## Cluster 5 0.4543707 0.4715172 0.4896293 0.4727931 0.5440905 0.6569138 0.6513017
##
                 21210
                           21211
                                     21212
                                               21213
                                                          21214
                                                                    21215
                                                                              21216
```

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## Cluster 1 0.9150716 0.8371538 0.7764085 0.6566817 0.5593011 0.4604456 0.3758753
## Cluster 2 1.0112639 1.0620909 0.8898446 0.8036305 0.7124311 0.5470674 0.4029824
## Cluster 3 0.8984014 0.8947943 0.8831234 0.7720865 0.7079333 0.6399248 0.5492099
## Cluster 4 0.6260758 0.6580794 0.5773141 0.4948881 0.4741697 0.4094910 0.3184224
## Cluster 5 0.7205948 0.7072759 0.7317845 0.7133707 0.7200216 0.7479397 0.7050259
                                               21220
                                                         21221
                                                                    21222
                 21217
                           21218
                                     21219
                                                                              21223
## Cluster 1 0.2681366 0.2195570 0.1849668 0.1668594 0.1584735 0.1574894 0.1557268
## Cluster 2 0.3074311 0.2219795 0.1794545 0.1663138 0.1654985 0.1605689 0.1565894
## Cluster 3 0.4120468 0.3361418 0.2753348 0.2408213 0.2228057 0.2074993 0.2037773
## Cluster 4 0.2743718 0.2407329 0.2288159 0.2273357 0.2111011 0.1878917 0.2083105
  Cluster 5 0.5472241 0.4737112 0.4145345 0.3382543 0.2843707 0.2586078 0.2587672
                                                         21228
                           21225
                 21224
                                     21226
                                               21227
                                                                    21229
                                                                              21230
## Cluster 1 0.1515955 0.1531459 0.1547308 0.1617347 0.1825663 0.1968183 0.2526830
## Cluster 2 0.1522317 0.1493519 0.1526276 0.1717830 0.1953431 0.2808651 0.3426393
## Cluster 3 0.2043121 0.1983135 0.1984837 0.2133716 0.2159106 0.2725390 0.2831986
## Cluster 4 0.1969458 0.2345343 0.2470686 0.2535957 0.3265054 0.3863285 0.5784657
## Cluster 5 0.2517888 0.2322974 0.2360603 0.2297974 0.2520690 0.2547500 0.2595086
##
                 21231
                           21232
                                     21233
                                               21234
                                                         21235
                                                                    21236
                                                                              21237
## Cluster 1 0.3942997 0.5913408 0.6151154 0.5130743 0.5076910 0.5003342 0.4824523
## Cluster 2 0.4074457 0.4566276 0.4529501 0.3536217 0.2645630 0.2595279 0.2516129
## Cluster 3 0.3641348 0.4232865 0.4681234 0.4396780 0.4179688 0.4304794 0.4318993
## Cluster 4 0.7417220 0.8506498 0.6586318 0.5362166 0.4399928 0.4303177 0.3978736
## Cluster 5 0.3924181 0.4362974 0.4388276 0.3897328 0.3392414 0.2940991 0.3196853
                 21238
                           21239
                                     21240
                                               21241
                                                         21242
                                                                    21243
## Cluster 1 0.4348475 0.4280504 0.3946061 0.4010650 0.4405637 0.4807639 0.4292056
## Cluster 2 0.2252493 0.2032023 0.2041496 0.2163959 0.2246979 0.2406628 0.2348446
## Cluster 3 0.4263574 0.4426539 0.4341532 0.4835149 0.4861447 0.5254383 0.5072255
## Cluster 4 0.3468664 0.3668123 0.3866643 0.3827365 0.3763538 0.3803755 0.3484368
## Cluster 5 0.3193491 0.3209741 0.3267845 0.2871207 0.3500345 0.3196724 0.3161250
##
                 21245
                           21246
                                     21247
                                               21248
                                                         21249
                                                                    21250
                                                                              21251
## Cluster 1 0.4346512 0.4360650 0.4526154 0.4994443 0.5578740 0.6831751 0.7810703
## Cluster 2 0.2184868 0.2365191 0.2284516 0.2699560 0.3038974 0.3653754 0.4153490
## Cluster 3 0.5046255 0.5014241 0.5350652 0.5520553 0.6336369 0.7176922 0.6954284
## Cluster 4 0.3373863 0.3484585 0.4516498 0.4452852 0.5675632 0.5993032 0.6291119
## Cluster 5 0.2834612 0.3375388 0.3295000 0.3534871 0.3980216 0.3634440 0.4283276
                                     21254
                                               21255
                 21252
                                                         21256
                           21253
                                                                    21257
                                                                              21258
## Cluster 1 0.8918568 0.8565411 0.7869867 0.8349708 0.9492361 0.9056247 0.9013939
## Cluster 2 0.4861584 0.5796481 0.6620499 0.8550000 0.9995015 0.9599443 1.0390000
## Cluster 3 0.7274624 0.7049035 0.6529972 0.7459589 0.8514652 0.8875631 0.8525801
## Cluster 4 0.6192960 0.6256065 0.6231877 0.7027581 0.7694477 0.7249242 0.6877112
## Cluster 5 0.4281595 0.4746207 0.4806853 0.5573836 0.6853879 0.7614612 0.7311810
                 21259
                           21260
                                     21261
                                               21262
                                                         21263
                                                                    21264
                                                                              21265
## Cluster 1 0.7994098 0.7699125 0.6663223 0.5549456 0.4705133 0.3382294 0.2725159
## Cluster 2 0.9580205 0.9357361 0.7274692 0.6146100 0.5244428 0.4093196 0.3290968
## Cluster 3 0.8519660 0.8104865 0.7593858 0.6751007 0.6163092 0.5246213 0.4132128
## Cluster 4 0.6509819 0.5556895 0.5020939 0.4355487 0.3731155 0.3357978 0.2713321
## Cluster 5 0.7118621 0.7308190 0.6930302 0.6944612 0.6859181 0.6537586 0.5155647
##
                 21266
                           21267
                                     21268
                                               21269
                                                         21270
                                                                    21271
                                                                              21272
## Cluster 1 0.2161366 0.1793806 0.1633528 0.1584907 0.1559456 0.1522613 0.1487891
## Cluster 2 0.2274927 0.1916070 0.1782141 0.1512610 0.1457243 0.1528827 0.1424751
## Cluster 3 0.3464922 0.2784071 0.2405248 0.2242312 0.2057773 0.1969830 0.1975333
## Cluster 4 0.2392202 0.2147148 0.2085307 0.2119711 0.1988231 0.2091625 0.2102996
## Cluster 5 0.4261897 0.3674310 0.2958190 0.2673017 0.2703621 0.2908707 0.2383319
##
                 21273
                           21274
                                     21275
                                               21276
                                                         21277
                                                                    21278
                                                                              21279
```

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## Cluster 1 0.1539430 0.1502944 0.1659536 0.1696724 0.1908395 0.2494562 0.4307281
## Cluster 2 0.1454194 0.1522522 0.1577273 0.1904927 0.2589355 0.3261056 0.4465044
## Cluster 3 0.1935149 0.1896326 0.2032624 0.2133177 0.2450057 0.2860738 0.3641078
## Cluster 4 0.2277401 0.2492671 0.2790469 0.3112852 0.4663863 0.5902419 0.8462671
## Cluster 5 0.2321897 0.2240991 0.2084224 0.2343836 0.2585733 0.2830000 0.4191595
                 21280
                                     21282
                                               21283
                                                          21284
                                                                    21285
##
                           21281
                                                                              21286
## Cluster 1 0.6088223 0.5831711 0.4848170 0.4808223 0.4563780 0.4337188 0.4567228
## Cluster 2 0.5107302 0.4746891 0.3423783 0.2995982 0.2763460 0.2572434 0.2464516
## Cluster 3 0.3978638 0.4561617 0.4538000 0.4352496 0.4384950 0.4217603 0.4298241
## Cluster 4 0.8318989 0.6880000 0.6113069 0.4675090 0.3803430 0.3614982 0.3729458
  Cluster 5 0.4968017 0.4628793 0.4280647 0.3731681 0.3264957 0.3295302 0.3419655
                           21288
                                     21289
                                               21290
                 21287
                                                          21291
                                                                    21292
                                                                              21293
## Cluster 1 0.4017440 0.3707997 0.4327374 0.4358289 0.4528289 0.4342215 0.3951432
## Cluster 2 0.2262463 0.2060469 0.2293079 0.2113900 0.2376979 0.2355894 0.2408270
## Cluster 3 0.4562525 0.4604440 0.4533362 0.4987617 0.4621433 0.4652411 0.4727660
## Cluster 4 0.3472238 0.3156390 0.3234585 0.3637581 0.3575199 0.3689422 0.3904801
## Cluster 5 0.3102241 0.2814483 0.3420086 0.3450259 0.3562586 0.3309095 0.3097802
##
                 21294
                           21295
                                     21296
                                               21297
                                                          21298
                                                                    21299
                                                                              21300
## Cluster 1 0.4244721 0.4718475 0.5026552 0.5764642 0.6845915 0.7655451 0.8980225
## Cluster 2 0.2428944 0.2587155 0.2532991 0.3077507 0.3934340 0.4219531 0.4910909
## Cluster 3 0.5017191 0.5401121 0.5653816 0.6190440 0.7060936 0.7505007 0.7450865
## Cluster 4 0.3745018 0.4971300 0.4790975 0.6386931 0.6304440 0.6715632 0.7321697
## Cluster 5 0.2982198 0.3566897 0.3262845 0.3781466 0.4041681 0.4107198 0.4455000
                 21301
                           21302
                                     21303
                                               21304
                                                          21305
                                                                    21306
## Cluster 1 0.8741618 0.8219443 0.8427706 0.9298660 0.9437560 0.9102440 0.8645000
## Cluster 2 0.6195015 0.7588299 0.8655308 0.9561466 1.0665689 1.0013372 0.9998827
## Cluster 3 0.7146128 0.7195574 0.8265035 0.8785887 0.8907248 0.8555177 0.8636894
## Cluster 4 0.7322202 0.6298881 0.7122419 0.6548989 0.6729025 0.6338773 0.6781227
## Cluster 5 0.5350991 0.5652112 0.6045172 0.6839957 0.6827026 0.6542629 0.6412414
##
                 21308
                           21309
                                     21310
                                               21311
                                                          21312
                                                                    21313
                                                                              21314
## Cluster 1 0.7391034 0.6988621 0.5475995 0.4534403 0.3694231 0.2798448 0.2258780
## Cluster 2 0.8833607 0.8429296 0.6833666 0.5349912 0.4240587 0.2997801 0.2489560
## Cluster 3 0.7956227 0.7194908 0.6848794 0.6148738 0.5522227 0.4658624 0.3530213
## Cluster 4 0.5645993 0.4697220 0.4534657 0.4066715 0.3210542 0.2780686 0.2295921
## Cluster 5 0.6759957 0.7018707 0.6723017 0.6865086 0.6163017 0.5553233 0.4675948
                                     21317
                                                          21319
                 21315
                           21316
                                               21318
                                                                    21320
                                                                              21321
## Cluster 1 0.1911127 0.1788170 0.1626631 0.1565716 0.1583660 0.1569111 0.1543912
## Cluster 2 0.1915191 0.1602874 0.1548065 0.1501232 0.1535894 0.1459677 0.1476774
## Cluster 3 0.2982936 0.2505759 0.2188142 0.2086794 0.2055645 0.2013433 0.1922738
## Cluster 4 0.2326318 0.2023177 0.2052527 0.2055921 0.1968159 0.2029495 0.2299531
## Cluster 5 0.3927716 0.3294914 0.3310905 0.2980862 0.2546681 0.2726250 0.2305733
                 21322
                           21323
                                     21324
                                               21325
                                                          21326
                                                                    21327
                                                                              21328
## Cluster 1 0.1570292 0.1662069 0.1791923 0.1996273 0.2424761 0.3982202 0.5491406
## Cluster 2 0.1661056 0.1741965 0.1955806 0.2798270 0.3143138 0.4156628 0.4581290
## Cluster 3 0.1910156 0.1993433 0.2141645 0.2539248 0.2987702 0.3681220 0.4307702
## Cluster 4 0.2198520 0.2781191 0.3282310 0.4246354 0.6010903 0.8525162 0.8419603
## Cluster 5 0.2224440 0.2578664 0.2489569 0.2885991 0.2645086 0.3734569 0.4782112
                           21330
##
                 21329
                                     21331
                                               21332
                                                          21333
                                                                    21334
                                                                              21335
## Cluster 1 0.5721366 0.4876499 0.5010027 0.4739019 0.4525477 0.4759708 0.4363634
## Cluster 2 0.4807742 0.3879941 0.3260499 0.3026510 0.2777595 0.2840704 0.2742962
## Cluster 3 0.4739475 0.4636213 0.4459787 0.4385957 0.4529220 0.4790340 0.4547801
## Cluster 4 0.7391805 0.5535126 0.4717256 0.3767834 0.3894404 0.3607653 0.3668195
## Cluster 5 0.4341422 0.3686638 0.3827112 0.3250172 0.3244009 0.3195259 0.3098276
##
                 21336
                           21337
                                     21338
                                               21339
                                                          21340
                                                                    21341
                                                                              21342
```

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## Cluster 1 0.4226260 0.4010690 0.4331061 0.4417016 0.4258674 0.3985968 0.3954151
## Cluster 2 0.2253930 0.2982023 0.2706774 0.3038504 0.2791965 0.2688680 0.2710293
## Cluster 3 0.4563986 0.4623730 0.4727078 0.4909390 0.4791163 0.4704170 0.5129461
## Cluster 4 0.3852238 0.4178592 0.3732419 0.4063682 0.3852780 0.3720181 0.3788989
## Cluster 5 0.2865129 0.2858491 0.3111207 0.3052974 0.3272112 0.3253362 0.2690345
                 21343
                           21344
                                     21345
                                               21346
                                                         21347
                                                                    21348
                                                                              21349
## Cluster 1 0.4427878 0.4903846 0.5491220 0.6194032 0.7172692 0.7956034 0.8088912
## Cluster 2 0.2977595 0.3281760 0.3405337 0.3828006 0.3909032 0.5159208 0.6121026
## Cluster 3 0.5582681 0.5719418 0.5710426 0.6661163 0.6721759 0.6910355 0.6731574
## Cluster 4 0.5184549 0.4684079 0.5804693 0.6043177 0.6235957 0.6194152 0.5423682
  Cluster 5 0.2943578 0.3364612 0.3849741 0.3570603 0.3642414 0.4373664 0.5275733
                                     21352
                 21350
                           21351
                                               21353
                                                         21354
                                                                    21355
                                                                              21356
## Cluster 1 0.7755438 0.8712613 0.8891379 0.8387029 0.8364390 0.7731472 0.7505836
## Cluster 2 0.7334457 0.7544311 0.9501173 0.9705103 0.8975337 0.8386657 0.8412199
## Cluster 3 0.6778213 0.7781745 0.8919475 0.8896043 0.8667305 0.8501248 0.7903035
## Cluster 4 0.5590542 0.6422491 0.6794910 0.6593394 0.6507473 0.5878412 0.5084910
## Cluster 5 0.5070905 0.5815819 0.6731595 0.6911164 0.7078621 0.6790733 0.6543621
##
                 21357
                           21358
                                     21359
                                               21360
                                                         21361
                                                                    21362
                                                                              21363
## Cluster 1 0.6736844 0.6048700 0.5259085 0.4486088 0.3459775 0.2670212 0.2269801
## Cluster 2 0.7755543 0.6973548 0.6226833 0.5346217 0.4259824 0.3153255 0.2356393
## Cluster 3 0.7412766 0.7081064 0.6799489 0.5983106 0.5221021 0.4295574 0.3479787
## Cluster 4 0.4909206 0.4443646 0.4276245 0.3589783 0.2942130 0.2689278 0.2469422
## Cluster 5 0.6678017 0.6553405 0.6782500 0.6490603 0.5386293 0.4686509 0.3978448
                 21364
                           21365
                                     21366
                                               21367
                                                         21368
                                                                    21369
## Cluster 1 0.2003170 0.1858448 0.1715000 0.1704894 0.1654469 0.1710822 0.1599721
## Cluster 2 0.2148152 0.1806862 0.1729912 0.1710381 0.1604194 0.1515630 0.1623138
## Cluster 3 0.3099191 0.2730142 0.2455787 0.2283234 0.2246326 0.2109390 0.2012000
## Cluster 4 0.2337329 0.2340939 0.2069964 0.1970108 0.2143430 0.2506859 0.2496859
## Cluster 5 0.3544612 0.3289310 0.3034052 0.2923578 0.2515862 0.2403966 0.2418103
##
                 21371
                           21372
                                     21373
                                               21374
                                                         21375
                                                                    21376
                                                                              21377
## Cluster 1 0.1651870 0.1779284 0.1848846 0.2037626 0.2190491 0.2881578 0.3507878
## Cluster 2 0.1724604 0.1758651 0.1900821 0.2053724 0.2227654 0.2720909 0.3454633
## Cluster 3 0.1997021 0.2096879 0.2250950 0.2313333 0.2388865 0.2587305 0.3375972
## Cluster 4 0.2698953 0.3013827 0.3417004 0.3687906 0.4507942 0.5296498 0.5672852
  Cluster 5 0.2266293 0.2295216 0.2635948 0.2457155 0.2928233 0.3099397 0.3241853
                 21378
                                     21380
                                                         21382
                           21379
                                               21381
                                                                    21383
                                                                              21384
## Cluster 1 0.4577732 0.6042334 0.6293581 0.6675531 0.7193515 0.7104761 0.6599841
## Cluster 2 0.3633138 0.4017625 0.4555484 0.4787977 0.4804985 0.4477390 0.4697595
## Cluster 3 0.3706766 0.4462596 0.4867830 0.5794908 0.6044454 0.6381262 0.6742624
## Cluster 4 0.5579025 0.6545271 0.6495415 0.5670144 0.5185235 0.5475415 0.5422166
## Cluster 5 0.3251983 0.3709741 0.4034784 0.4330086 0.4551379 0.4643190 0.4844138
                 21385
                           21386
                                     21387
                                               21388
                                                         21389
                                                                    21390
                                                                              21391
## Cluster 1 0.6455332 0.7193515 0.6944987 0.6462546 0.6191340 0.5903992 0.5987613
## Cluster 2 0.4565015 0.4697683 0.4914868 0.4380147 0.4765924 0.4801085 0.4766422
## Cluster 3 0.7271447 0.7152922 0.7251730 0.6913418 0.6497631 0.6404950 0.6887206
## Cluster 4 0.5146209 0.5590722 0.5914477 0.5538159 0.5474729 0.5287545 0.5502671
## Cluster 5 0.5163707 0.4753103 0.5268491 0.4891853 0.4822457 0.4201940 0.4154095
                           21393
                                               21395
##
                 21392
                                     21394
                                                         21396
                                                                    21397
                                                                              21398
## Cluster 1 0.6226724 0.6574695 0.7145385 0.7866021 0.8748369 0.9158448 0.9062573
## Cluster 2 0.4345924 0.5158475 0.5313138 0.5312522 0.7047243 0.7458006 0.8322522
## Cluster 3 0.6580355 0.6847518 0.7433546 0.7960184 0.8326553 0.8535035 0.8699603
## Cluster 4 0.5513105 0.7103394 0.6434368 0.6811227 0.6350469 0.6624765 0.6294477
## Cluster 5 0.4379612 0.4326034 0.4873793 0.4921638 0.5751121 0.6434310 0.6644828
##
                 21399
                           21400
                                     21401
                                               21402
                                                         21403
                                                                    21404
                                                                              21405
```

```
## Cluster 1 0.9373687 0.8992414 0.8618156 0.8063064 0.7608674 0.7196300 0.6488064
## Cluster 2 0.9219824 0.9907918 0.9820469 0.9056833 0.8368270 0.7962287 0.7000352
## Cluster 3 0.9306596 0.8728312 0.8796652 0.8549872 0.8528071 0.7880908 0.7267631
## Cluster 4 0.6722455 0.6784007 0.6186354 0.5660253 0.5331264 0.5206029 0.4818051
## Cluster 5 0.7686681 0.7591207 0.7253362 0.7214741 0.7694526 0.7185388 0.6988534
                 21406
                                     21408
                                               21409
                                                          21410
##
                           21407
                                                                    21411
## Cluster 1 0.5870570 0.5237374 0.4604125 0.3640849 0.2962692 0.2452414 0.2167891
## Cluster 2 0.6356276 0.5385337 0.4773548 0.4054047 0.3256364 0.2723812 0.2379032
## Cluster 3 0.6895773 0.6218071 0.5670652 0.4829801 0.4297645 0.3509574 0.3192099
## Cluster 4 0.4750108 0.3895776 0.3602527 0.3028339 0.2611877 0.2382888 0.2598809
  Cluster 5 0.6466207 0.6904784 0.6558276 0.5666681 0.4962586 0.4739224 0.3764267
                                     21415
                 21413
                           21414
                                               21416
                                                          21417
                                                                    21418
## Cluster 1 0.1949191 0.1802997 0.1786989 0.1736088 0.1701538 0.1649708 0.1637706
## Cluster 2 0.2173372 0.1821965 0.1796246 0.1647009 0.1708358 0.1669589 0.1667507
## Cluster 3 0.2844383 0.2516652 0.2319589 0.2302936 0.2164199 0.2086057 0.2100213
## Cluster 4 0.2442455 0.2258087 0.2179458 0.2080686 0.2446968 0.2519928 0.3053899
## Cluster 5 0.3424957 0.2872629 0.2807328 0.2824052 0.2642241 0.2581121 0.2814612
##
                 21420
                           21421
                                     21422
                                               21423
                                                          21424
                                                                    21425
                                                                              21426
## Cluster 1 0.1645385 0.1713143 0.1796101 0.2051658 0.2552255 0.3355371 0.4361711
## Cluster 2 0.1751026 0.1802874 0.1872815 0.2081437 0.2411349 0.2500059 0.2989384
## Cluster 3 0.2162993 0.2344567 0.2356766 0.2394099 0.2525248 0.2901475 0.3329546
## Cluster 4 0.3065596 0.3450144 0.3615812 0.4173213 0.4617148 0.5144332 0.5646318
## Cluster 5 0.2528966 0.2525086 0.2593448 0.2809310 0.2815819 0.2710431 0.2796250
                 21427
                           21428
                                     21429
                                               21430
                                                          21431
                                                                    21432
## Cluster 1 0.5363727 0.6412878 0.7016830 0.7914164 0.7782732 0.7284456 0.7854032
## Cluster 2 0.3702815 0.4184721 0.4364018 0.4725572 0.5383284 0.5223578 0.4963226
## Cluster 3 0.4205702 0.5270099 0.5935376 0.6605177 0.6901674 0.7111007 0.7197191
## Cluster 4 0.5505921 0.6684404 0.5732202 0.6243538 0.6377365 0.6663032 0.7068231
## Cluster 5 0.3452629 0.3942845 0.4630216 0.4499397 0.4355517 0.4467888 0.5138491
##
                 21434
                           21435
                                     21436
                                               21437
                                                          21438
                                                                    21439
                                                                              21440
## Cluster 1 0.8403143 0.8387958 0.7635186 0.7184337 0.6630013 0.6651830 0.6444204
## Cluster 2 0.5474457 0.6113842 0.5261232 0.4432933 0.5010440 0.4667830 0.4347742
## Cluster 3 0.7821447 0.8214142 0.7471191 0.7366908 0.7393376 0.7008965 0.6685489
## Cluster 4 0.6965704 0.6253141 0.6439567 0.5761805 0.5572455 0.5664585 0.5226715
## Cluster 5 0.5860948 0.5125560 0.4368836 0.4871595 0.4989440 0.4426164 0.4406293
                           21442
                                     21443
                                                          21445
                 21441
                                               21444
                                                                    21446
                                                                              21447
## Cluster 1 0.6646724 0.6653700 0.7023183 0.7686286 0.7994721 0.8333130 0.9507891
## Cluster 2 0.5063402 0.5552405 0.5588856 0.6148152 0.6400029 0.7507625 0.9269560
## Cluster 3 0.6564709 0.6634979 0.7059021 0.6812596 0.6942482 0.7227532 0.8081986
## Cluster 4 0.6036029 0.6092383 0.6604982 0.6937906 0.6052563 0.6144404 0.6977978
## Cluster 5 0.4470603 0.4875302 0.4855862 0.5591034 0.5263276 0.5775819 0.6427414
                 21448
                           21449
                                     21450
                                               21451
                                                          21452
                                                                    21453
                                                                              21454
## Cluster 1 0.9758846 0.8935968 0.8152294 0.8353329 0.7411446 0.6723435 0.5572971
## Cluster 2 0.9912053 1.0300381 1.0137214 0.9181818 0.8553607 0.7579765 0.6577449
## Cluster 3 0.9079106 0.8895277 0.8259035 0.8674780 0.8213461 0.7292369 0.6649915
## Cluster 4 0.6832022 0.6801372 0.6558917 0.6389675 0.5488267 0.4862744 0.4240578
## Cluster 5 0.6415948 0.6633017 0.6512586 0.6824440 0.7015776 0.6882802 0.6688405
##
                 21455
                           21456
                                     21457
                                               21458
                                                          21459
                                                                    21460
                                                                              21461
## Cluster 1 0.4848289 0.3683435 0.2669509 0.2130345 0.1855584 0.1736286 0.1614058
## Cluster 2 0.5316129 0.4057097 0.3094282 0.2354897 0.2004282 0.1673871 0.1554399
## Cluster 3 0.5991262 0.5411206 0.4408823 0.3570979 0.3166908 0.2807603 0.2518780
## Cluster 4 0.3841588 0.3221011 0.2611986 0.2291336 0.2164946 0.2070505 0.2140433
## Cluster 5 0.7367931 0.6388060 0.5363276 0.4769741 0.3971379 0.3347328 0.3237931
##
                 21462
                           21463
                                     21464
                                               21465
                                                          21466
                                                                    21467
                                                                              21468
```

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## Cluster 1 0.1554456 0.1534443 0.1503700 0.1547666 0.1552003 0.1573886 0.1670955
## Cluster 2 0.1457273 0.1477214 0.1480557 0.1504839 0.1517243 0.1561320 0.1779795
## Cluster 3 0.2225986 0.2096922 0.1983801 0.1963078 0.2045291 0.2053943 0.2147787
## Cluster 4 0.1973791 0.1869783 0.1912708 0.2217870 0.2711083 0.2915307 0.3213430
## Cluster 5 0.2656853 0.2524569 0.2226810 0.2106250 0.2152802 0.2234526 0.2363879
                 21469
                                               21472
                                                          21473
##
                           21470
                                     21471
                                                                    21474
## Cluster 1 0.1842918 0.2525690 0.3813939 0.5642361 0.5794615 0.4939416 0.5132891
## Cluster 2 0.2660264 0.3115748 0.4053402 0.4679150 0.4786276 0.3410938 0.2872111
## Cluster 3 0.2619674 0.2831702 0.3629617 0.4473135 0.5035475 0.4618128 0.4331574
## Cluster 4 0.4353357 0.5614188 0.8213141 0.8759061 0.6568123 0.5320181 0.4308917
  Cluster 5 0.2922457 0.2824612 0.3523707 0.4671250 0.4525991 0.4145043 0.3255302
                           21477
                                     21478
                                               21479
                 21476
                                                          21480
                                                                    21481
                                                                              21482
## Cluster 1 0.5099151 0.4794324 0.4705279 0.4824085 0.4543952 0.4786154 0.4635225
## Cluster 2 0.2466950 0.2484604 0.2572170 0.2542287 0.2677009 0.2776012 0.2670029
## Cluster 3 0.4298709 0.4423929 0.4797887 0.4937390 0.4793248 0.4784809 0.5026156
## Cluster 4 0.4364513 0.4054910 0.4214982 0.3562130 0.3461877 0.3637653 0.3696173
## Cluster 5 0.3272241 0.3345733 0.3428147 0.3485172 0.3183103 0.3657759 0.3852586
##
                 21483
                           21484
                                     21485
                                               21486
                                                          21487
                                                                    21488
                                                                              21489
## Cluster 1 0.4867334 0.4686446 0.4710491 0.4547281 0.4694987 0.5268024 0.6612798
## Cluster 2 0.3022698 0.2838416 0.2519677 0.2997126 0.3019736 0.2948622 0.3384692
## Cluster 3 0.5602099 0.5434894 0.5210156 0.5015418 0.5450539 0.5900922 0.6979376
## Cluster 4 0.4008267 0.4127978 0.4462202 0.4291986 0.5109531 0.5805054 0.6371408
## Cluster 5 0.3830259 0.3588448 0.3020129 0.3159784 0.3483017 0.3815216 0.4207629
                 21490
                           21491
                                     21492
                                               21493
                                                          21494
                                                                    21495
## Cluster 1 0.7678594 0.8515398 0.9871034 0.8935279 0.8413024 0.9089324 0.9271286
## Cluster 2 0.3850176 0.4341789 0.5545279 0.7021848 0.8097859 0.9705953 1.0173812
## Cluster 3 0.7910028 0.7809801 0.7747730 0.7606596 0.7404099 0.8304922 0.8779163
## Cluster 4 0.7414657 0.7342599 0.7616065 0.6595090 0.5995126 0.6679495 0.7045993
## Cluster 5 0.4347543 0.4806638 0.5663750 0.5913190 0.5174914 0.6538276 0.7417629
##
                 21497
                           21498
                                     21499
                                               21500
                                                          21501
                                                                    21502
                                                                              21503
## Cluster 1 0.9164668 0.9108064 0.8581751 0.7564841 0.6636645 0.5489549 0.4653793
## Cluster 2 0.9759795 1.0026452 0.9153255 0.8310499 0.8033109 0.6890938 0.5777097
## Cluster 3 0.8941943 0.8591106 0.8377404 0.8098794 0.7491447 0.6937305 0.6102128
## Cluster 4 0.6628123 0.6322419 0.6224152 0.6145271 0.5314946 0.4467617 0.4017112
## Cluster 5 0.7800603 0.7311724 0.7606466 0.7270474 0.6877414 0.7056724 0.6876034
                                     21506
                                                          21508
                 21504
                           21505
                                               21507
                                                                    21509
                                                                              21510
## Cluster 1 0.3676631 0.2660517 0.2203899 0.1894788 0.1690756 0.1578435 0.1595836
## Cluster 2 0.4498534 0.2958592 0.2177566 0.1866891 0.1663959 0.1557449 0.1450616
## Cluster 3 0.5304454 0.4366553 0.3494170 0.2976596 0.2481844 0.2224113 0.2072695
## Cluster 4 0.3234657 0.2840181 0.2317365 0.2161733 0.2176823 0.2032960 0.1969495
## Cluster 5 0.6538276 0.5669353 0.4683319 0.4074138 0.3396595 0.2963534 0.2755043
                 21511
                           21512
                                     21513
                                               21514
                                                          21515
                                                                    21516
                                                                              21517
## Cluster 1 0.1541499 0.1504390 0.1509111 0.1501870 0.1526366 0.1708554 0.1961273
## Cluster 2 0.1523519 0.1363226 0.1348240 0.1538006 0.1617009 0.1890938 0.2632111
## Cluster 3 0.1989376 0.2030582 0.2014312 0.1962340 0.1988596 0.2213645 0.2494950
## Cluster 4 0.1892094 0.1925271 0.2326065 0.2835848 0.2982238 0.3660505 0.4698412
## Cluster 5 0.2522974 0.2470517 0.2359353 0.2305129 0.2657457 0.2444181 0.2751897
##
                 21518
                           21519
                                     21520
                                               21521
                                                          21522
                                                                    21523
                                                                              21524
## Cluster 1 0.2576790 0.3844257 0.5512812 0.5639363 0.4832507 0.4457149 0.4686127
## Cluster 2 0.2984780 0.4103900 0.4840440 0.4590880 0.3361613 0.2758739 0.2424457
## Cluster 3 0.2856950 0.3592638 0.4210340 0.4515121 0.3936284 0.4010468 0.4011390
## Cluster 4 0.6602563 0.8750289 0.9064765 0.7664549 0.6066462 0.4456534 0.3772383
## Cluster 5 0.3141293 0.4060000 0.5030776 0.4630172 0.3854914 0.3584914 0.3217716
##
                 21525
                           21526
                                     21527
                                               21528
                                                          21529
                                                                    21530
                                                                              21531
```

```
## Cluster 1 0.4639536 0.4407202 0.4164032 0.4158793 0.4326618 0.4450066 0.4906048
## Cluster 2 0.2402874 0.1980821 0.2243050 0.2247507 0.2355425 0.2387449 0.2640088
## Cluster 3 0.3898752 0.4255163 0.4391064 0.4153801 0.4242511 0.4849943 0.4702000
## Cluster 4 0.3516390 0.3866318 0.3583394 0.3227401 0.3555018 0.3768917 0.3988556
## Cluster 5 0.3226466 0.3212241 0.3260647 0.3665776 0.3809095 0.3389267 0.3547716
                 21532
                                                          21536
                           21533
                                     21534
                                               21535
                                                                    21537
                                                                              21538
## Cluster 1 0.4311194 0.4141844 0.4099973 0.4359735 0.4952851 0.5694788 0.6999576
## Cluster 2 0.2722053 0.2519032 0.2389062 0.2835601 0.2881906 0.3134604 0.3666628
## Cluster 3 0.4595702 0.4674823 0.4685262 0.4945404 0.5752496 0.6521688 0.6800922
## Cluster 4 0.3461986 0.3572635 0.3483682 0.4000505 0.4157365 0.5084657 0.6203502
  Cluster 5 0.3090259 0.2744828 0.3075603 0.3106121 0.3339655 0.3301034 0.3632328
                           21540
                                     21541
                 21539
                                               21542
                                                          21543
                                                                    21544
                                                                              21545
## Cluster 1 0.8376406 0.9321167 0.8803740 0.8183594 0.8966366 0.9099350 0.8939178
## Cluster 2 0.4298094 0.5761378 0.6750616 0.7770557 0.9360792 0.9802317 0.9943167
## Cluster 3 0.7034298 0.6886979 0.7246894 0.7422241 0.8062028 0.8891262 0.9084383
## Cluster 4 0.7250325 0.7333285 0.6285054 0.6365776 0.7524332 0.7695090 0.6601625
## Cluster 5 0.4021207 0.4679957 0.4999871 0.5124181 0.5778793 0.6269267 0.7723879
##
                 21546
                           21547
                                     21548
                                               21549
                                                          21550
                                                                    21551
                                                                              21552
## Cluster 1 0.8719019 0.8462958 0.7251578 0.7026512 0.5591393 0.4869509 0.3828143
## Cluster 2 0.9990557 0.9436070 0.9273109 0.8120968 0.6865191 0.5281378 0.3813490
## Cluster 3 0.8756908 0.8537291 0.8314979 0.7803220 0.7052638 0.6442752 0.5308908
## Cluster 4 0.6277040 0.6586751 0.5353430 0.4742671 0.4262708 0.3996751 0.3352310
## Cluster 5 0.7086940 0.7170086 0.7182155 0.6993319 0.7065345 0.7377759 0.6828491
                 21553
                           21554
                                     21555
                                               21556
                                                          21557
                                                                    21558
## Cluster 1 0.2856698 0.2219642 0.1838090 0.1662361 0.1590398 0.1609576 0.1586432
## Cluster 2 0.2782317 0.2069179 0.1744604 0.1654604 0.1531290 0.1455220 0.1496598
## Cluster 3 0.4250865 0.3432766 0.2763206 0.2427007 0.2193248 0.1989163 0.1983986
## Cluster 4 0.3049278 0.2624946 0.2258375 0.2271986 0.2381264 0.2215199 0.2043069
## Cluster 5 0.5602457 0.4798319 0.3836724 0.2910819 0.2876466 0.2642112 0.2674138
##
                 21560
                           21561
                                     21562
                                               21563
                                                          21564
                                                                    21565
                                                                              21566
## Cluster 1 0.1597414 0.1500146 0.1592759 0.1574814 0.1809602 0.1975889 0.2472294
## Cluster 2 0.1423519 0.1365806 0.1466246 0.1794135 0.1966921 0.2793138 0.3455601
## Cluster 3 0.2020043 0.1942397 0.1949078 0.1904908 0.2060624 0.2459688 0.2980851
## Cluster 4 0.1969061 0.2412274 0.2655018 0.3242238 0.3481300 0.4461877 0.5505487
  Cluster 5 0.2359655 0.2119569 0.2042888 0.2222328 0.2325647 0.2459181 0.2802026
                                               21570
                 21567
                           21568
                                     21569
                                                          21571
                                                                    21572
                                                                              21573
## Cluster 1 0.4107042 0.5787374 0.5703912 0.5119934 0.4875849 0.5020743 0.4875663
## Cluster 2 0.4448152 0.5537625 0.5238299 0.3203812 0.2999296 0.2555806 0.2515396
## Cluster 3 0.3554014 0.3965730 0.4462156 0.4202709 0.4433277 0.4333518 0.4399106
## Cluster 4 0.7479711 0.8527690 0.7334404 0.5387004 0.5186643 0.4060686 0.4266354
## Cluster 5 0.3854526 0.4183103 0.4330603 0.3761466 0.2856121 0.3125345 0.3141810
                 21574
                           21575
                                     21576
                                               21577
                                                          21578
                                                                    21579
                                                                              21580
## Cluster 1 0.4422387 0.4406326 0.4325676 0.4312719 0.4720186 0.4114456 0.4117294
## Cluster 2 0.2235513 0.2352317 0.2067654 0.2105689 0.2303988 0.2472610 0.2643578
## Cluster 3 0.4441887 0.4681461 0.4791376 0.5006936 0.5167631 0.4768525 0.4568113
## Cluster 4 0.3887329 0.3967690 0.3982202 0.3573538 0.4100217 0.4608087 0.3766715
## Cluster 5 0.3278707 0.2991379 0.3393147 0.3422802 0.3410345 0.3373491 0.3150948
                                     21583
##
                 21581
                           21582
                                               21584
                                                          21585
                                                                    21586
                                                                              21587
## Cluster 1 0.4210477 0.3984125 0.4161340 0.4594045 0.5331870 0.6350040 0.7632891
## Cluster 2 0.2466686 0.2786774 0.2984223 0.2600733 0.2849003 0.3460469 0.3862522
## Cluster 3 0.4730170 0.4958014 0.5090199 0.5477617 0.6435064 0.7420355 0.6911163
## Cluster 4 0.3752744 0.4072996 0.4482563 0.4800578 0.5444079 0.6411011 0.6983538
## Cluster 5 0.3538233 0.2899957 0.3317328 0.3599698 0.3589569 0.3444440 0.3595517
##
                 21588
                           21589
                                     21590
                                               21591
                                                          21592
                                                                    21593
                                                                              21594
```

```
## Cluster 1 0.8798408 0.8650584 0.8133196 0.9398435 0.9352653 0.9156963 0.9017255
## Cluster 2 0.4835103 0.6399179 0.6920088 0.9733109 1.0477742 1.0240880 1.0785103
## Cluster 3 0.6857929 0.7231447 0.6978695 0.8390567 0.8618936 0.8569489 0.8657631
## Cluster 4 0.6803827 0.7587762 0.7450469 0.7562347 0.7400505 0.7407292 0.6890758
## Cluster 5 0.4252026 0.4626078 0.4842284 0.6542543 0.6988578 0.6768405 0.7161336
                 21595
                           21596
                                               21598
                                                         21599
                                                                    21600
##
                                     21597
                                                                              21601
## Cluster 1 0.7978488 0.7596406 0.6891724 0.5956512 0.4758873 0.3692546 0.2681631
## Cluster 2 0.9570000 0.8596540 0.8345718 0.7317537 0.5732581 0.4361408 0.2929032
## Cluster 3 0.8854865 0.8206312 0.7870213 0.7120837 0.6500879 0.5154582 0.4138369
## Cluster 4 0.6573357 0.5862310 0.5109928 0.4174368 0.3562202 0.3062310 0.2696173
  Cluster 5 0.7357026 0.6901034 0.6609612 0.6698103 0.7093578 0.6684871 0.5606379
                                               21605
                 21602
                           21603
                                     21604
                                                         21606
                                                                    21607
## Cluster 1 0.2293740 0.1849496 0.1704960 0.1665928 0.1542401 0.1553488 0.1612997
## Cluster 2 0.2146657 0.1998563 0.1766364 0.1754428 0.1449032 0.1568358 0.1489238
## Cluster 3 0.3401773 0.2845220 0.2457844 0.2279007 0.2152071 0.1988000 0.1937319
## Cluster 4 0.2319206 0.2152816 0.2265018 0.2239134 0.2210505 0.2175921 0.1976101
## Cluster 5 0.4698276 0.3995086 0.3277328 0.2969224 0.2551681 0.2501724 0.2263879
##
                 21609
                           21610
                                     21611
                                               21612
                                                         21613
                                                                    21614
                                                                              21615
## Cluster 1 0.1546605 0.1505093 0.1618475 0.1754775 0.2151406 0.2611074 0.4182719
## Cluster 2 0.1461026 0.1517859 0.1660411 0.1962434 0.2821935 0.3172522 0.4593079
## Cluster 3 0.1904000 0.1923291 0.1901447 0.2090468 0.2439149 0.2915106 0.3617021
## Cluster 4 0.2356570 0.2603574 0.2973466 0.3622708 0.4090650 0.5817726 0.7253899
## Cluster 5 0.1997931 0.2109052 0.2312112 0.2228922 0.2415000 0.2834741 0.4045517
                 21616
                           21617
                                     21618
                                               21619
                                                         21620
                                                                    21621
## Cluster 1 0.5922878 0.5700570 0.5429483 0.5426525 0.4749164 0.4676844 0.4228979
## Cluster 2 0.4920968 0.4899795 0.3644223 0.2579472 0.2439677 0.2374047 0.2377654
## Cluster 3 0.3903177 0.4619901 0.4355277 0.4085021 0.3929872 0.4325759 0.4422723
## Cluster 4 0.7853574 0.7262166 0.5325596 0.4796173 0.4351083 0.3832202 0.3403357
## Cluster 5 0.4393147 0.4392716 0.3993966 0.3060560 0.2871552 0.3197974 0.3305431
##
                 21623
                           21624
                                     21625
                                               21626
                                                         21627
                                                                    21628
                                                                              21629
## Cluster 1 0.4078806 0.3928528 0.4011048 0.4453859 0.4302533 0.4099509 0.3771472
## Cluster 2 0.2249120 0.2161261 0.2076891 0.2250499 0.2268094 0.2384457 0.2021026
## Cluster 3 0.4267305 0.4173319 0.4365092 0.4477035 0.4535007 0.4574099 0.4396312
## Cluster 4 0.3118809 0.3485704 0.3493718 0.3515776 0.3873321 0.3575018 0.3961480
## Cluster 5 0.3289526 0.3204310 0.3110517 0.3162931 0.3264526 0.3402112 0.3176293
                                               21633
                                                         21634
                 21630
                           21631
                                     21632
                                                                    21635
                                                                              21636
## Cluster 1 0.3653435 0.3718011 0.4504483 0.5342573 0.6500849 0.8110066 0.8261101
## Cluster 2 0.2153343 0.2285660 0.2366804 0.2726100 0.3224282 0.3756950 0.5067361
## Cluster 3 0.4884270 0.5524241 0.5690312 0.6512213 0.7165915 0.6912908 0.6880000
## Cluster 4 0.3595307 0.3901516 0.3910072 0.5471625 0.6243357 0.6194188 0.6590433
## Cluster 5 0.3268147 0.3115474 0.3224052 0.3331121 0.3961983 0.3993017 0.4409052
                           21638
                                     21639
                                               21640
                 21637
                                                         21641
                                                                    21642
                                                                              21643
## Cluster 1 0.8695743 0.8048727 0.9494032 0.9867944 0.8986605 0.8649562 0.8437812
## Cluster 2 0.6042434 0.7452786 0.8882463 1.0608768 1.0499589 0.9079472 0.9704164
## Cluster 3 0.6719603 0.6734936 0.8172865 0.8646837 0.8646468 0.8613475 0.9004326
## Cluster 4 0.7171913 0.6478664 0.6652527 0.7056390 0.6776354 0.5737978 0.5789134
## Cluster 5 0.4999440 0.5222931 0.5681983 0.6673664 0.6656509 0.6818405 0.6948147
##
                 21644
                           21645
                                     21646
                                               21647
                                                         21648
                                                                    21649
                                                                              21650
## Cluster 1 0.7441154 0.6643793 0.5548196 0.4571432 0.3797798 0.2879085 0.2300040
## Cluster 2 0.8655015 0.8137977 0.6901173 0.5473050 0.3998299 0.3102493 0.2580645
## Cluster 3 0.8119404 0.7577220 0.6659177 0.6141986 0.5407688 0.4210667 0.3546440
## Cluster 4 0.5648592 0.5205199 0.4684152 0.4301949 0.3450433 0.2827545 0.2474116
## Cluster 5 0.7615603 0.7379698 0.6855302 0.6577284 0.6593750 0.5296466 0.4650819
##
                 21651
                           21652
                                     21653
                                               21654
                                                         21655
                                                                    21656
                                                                              21657
```

```
## Cluster 1 0.1971963 0.1705411 0.1654668 0.1595265 0.1631114 0.1599363 0.1550305
## Cluster 2 0.2221144 0.1955630 0.1695718 0.1659091 0.1631408 0.1506100 0.1507859
## Cluster 3 0.2796851 0.2447149 0.2317234 0.2059319 0.1979716 0.2008170 0.2018837
## Cluster 4 0.2397726 0.2333971 0.2382166 0.2477329 0.2192563 0.2117401 0.2506173
## Cluster 5 0.3902716 0.3496336 0.3411078 0.2948448 0.2823966 0.2727802 0.2490086
                 21658
                           21659
                                     21660
                                                          21662
##
                                               21661
                                                                    21663
## Cluster 1 0.1580398 0.1722361 0.1785836 0.1880557 0.2448966 0.3994456 0.5600172
## Cluster 2 0.1599560 0.1733871 0.1933021 0.2620059 0.3216862 0.3997419 0.4823578
## Cluster 3 0.2098113 0.2133461 0.2126667 0.2521050 0.2867674 0.3743475 0.4255929
## Cluster 4 0.2811011 0.3255523 0.3694549 0.4280036 0.5689097 0.7567401 0.8541949
  Cluster 5 0.2568103 0.2568836 0.2337069 0.2348448 0.2770862 0.3782543 0.4359957
                           21666
                                     21667
                                               21668
                 21665
                                                          21669
                                                                    21670
                                                                              21671
## Cluster 1 0.5856618 0.5316180 0.4746472 0.4662175 0.4715146 0.4980093 0.4708687
## Cluster 2 0.4829560 0.3475660 0.3089091 0.2864721 0.2366716 0.2661085 0.2725513
## Cluster 3 0.4866823 0.4634936 0.4355319 0.4680965 0.4162837 0.4837532 0.4630369
## Cluster 4 0.6883502 0.6241697 0.4934224 0.4254188 0.3830108 0.3468809 0.3637762
## Cluster 5 0.4310603 0.4122155 0.3729310 0.3286422 0.3705474 0.3185733 0.3839871
##
                 21672
                           21673
                                     21674
                                               21675
                                                          21676
                                                                    21677
                                                                              21678
## Cluster 1 0.4147865 0.4387653 0.4643316 0.4413117 0.3978581 0.4127109 0.4145398
## Cluster 2 0.2321525 0.2444692 0.2304868 0.2602757 0.2547713 0.2551730 0.2577683
## Cluster 3 0.4798879 0.4404255 0.4677759 0.4859163 0.4760142 0.4816525 0.5022894
## Cluster 4 0.3637148 0.4012960 0.3586426 0.3839386 0.4180433 0.4137473 0.4104910
## Cluster 5 0.3188707 0.3703405 0.3523190 0.3725647 0.3433147 0.3576250 0.3566724
                 21679
                           21680
                                     21681
                                               21682
                                                          21683
                                                                    21684
## Cluster 1 0.4341406 0.4790358 0.5392241 0.6509390 0.7061976 0.8140703 0.8580822
## Cluster 2 0.2995396 0.3094018 0.3203783 0.3478974 0.4343607 0.5002727 0.6390997
## Cluster 3 0.5102624 0.5566950 0.6361929 0.6373277 0.6684411 0.6896213 0.7101730
## Cluster 4 0.4006751 0.4163430 0.5018520 0.5482708 0.5812130 0.6777545 0.6169603
## Cluster 5 0.3356078 0.3617026 0.3556638 0.3865216 0.3842759 0.4095819 0.4664224
##
                 21686
                           21687
                                     21688
                                               21689
                                                          21690
                                                                    21691
                                                                              21692
## Cluster 1 0.8330345 0.9029218 0.8991870 0.8696512 0.8399496 0.7525676 0.7403912
## Cluster 2 0.7788094 0.9205191 0.9284457 0.9173402 0.8834135 0.8851994 0.8143959
## Cluster 3 0.7628411 0.8342482 0.8777050 0.8378312 0.8180752 0.8132681 0.7757532
## Cluster 4 0.6547184 0.7353971 0.7267040 0.6615993 0.5963502 0.5870830 0.5531697
## Cluster 5 0.5175000 0.6715172 0.6514095 0.6609397 0.6985302 0.6893750 0.6792026
                           21694
                                               21696
                                                          21697
                 21693
                                     21695
                                                                    21698
                                                                              21699
## Cluster 1 0.7024934 0.5915915 0.5476101 0.4703448 0.3626698 0.2954284 0.2374085
## Cluster 2 0.7842845 0.6879736 0.6624985 0.5253109 0.4119853 0.3170792 0.2482669
## Cluster 3 0.7424582 0.6874312 0.6692709 0.6203106 0.5189887 0.4034184 0.3375589
## Cluster 4 0.5380217 0.4624152 0.4414224 0.3720397 0.3255668 0.2705884 0.2507004
## Cluster 5 0.6421509 0.6780991 0.6764828 0.6420129 0.5756466 0.4924052 0.3999741
                 21700
                           21701
                                     21702
                                               21703
                                                          21704
                                                                    21705
                                                                              21706
## Cluster 1 0.2078369 0.1894509 0.1868156 0.1844271 0.1702507 0.1717706 0.1703740
## Cluster 2 0.2229883 0.1922170 0.1659883 0.1584839 0.1556012 0.1522669 0.1583871
## Cluster 3 0.3043149 0.2628752 0.2397064 0.2288184 0.2203362 0.2121730 0.2116270
## Cluster 4 0.2250505 0.2280903 0.2227365 0.2053538 0.2012888 0.2475054 0.2895596
## Cluster 5 0.3712284 0.3105259 0.2938319 0.2950431 0.2620345 0.2656164 0.2586638
                           21708
                                     21709
##
                 21707
                                               21710
                                                          21711
                                                                    21712
                                                                              21713
## Cluster 1 0.1784416 0.1762759 0.1831724 0.1988952 0.2375637 0.3219191 0.3714019
## Cluster 2 0.1604076 0.1765191 0.2044076 0.2071701 0.2386540 0.2703255 0.3359326
## Cluster 3 0.2136440 0.2128014 0.2324170 0.2386043 0.2358043 0.2965631 0.3345021
## Cluster 4 0.3018989 0.3065848 0.3297690 0.3550758 0.4290072 0.5306173 0.5865921
## Cluster 5 0.2486767 0.2348190 0.2438319 0.2653966 0.2926595 0.3053448 0.2996724
##
                 21714
                           21715
                                     21716
                                               21717
                                                          21718
                                                                    21719
                                                                              21720
```

```
## Cluster 1 0.4910597 0.5967798 0.6655199 0.6854377 0.6310265 0.6635769 0.6678316
## Cluster 2 0.3715191 0.4582463 0.4603754 0.5245660 0.5213079 0.4829296 0.4011877
## Cluster 3 0.3692709 0.4656326 0.5347546 0.6040936 0.6600071 0.6927674 0.6618340
## Cluster 4 0.6289747 0.6106968 0.5716606 0.5392852 0.5206931 0.5846751 0.5733718
## Cluster 5 0.3604310 0.4041552 0.3732888 0.3909655 0.4304181 0.4381940 0.4162888
                 21721
                           21722
                                                          21725
                                                                    21726
                                     21723
                                               21724
                                                                              21727
## Cluster 1 0.6565225 0.6977958 0.6981645 0.6717666 0.6338607 0.6281578 0.5747745
## Cluster 2 0.4379941 0.4459062 0.4505718 0.4262903 0.3951525 0.4023109 0.4233021
## Cluster 3 0.6547915 0.6901248 0.6896312 0.6297872 0.6224298 0.6167390 0.6161447
## Cluster 4 0.5466318 0.5660650 0.4883574 0.4682635 0.4855054 0.4885560 0.4915921
  Cluster 5 0.4372586 0.4467629 0.4869181 0.4569267 0.4560733 0.4069224 0.3650603
                 21728
                           21729
                                     21730
                                               21731
                                                          21732
                                                                    21733
                                                                              21734
## Cluster 1 0.5423740 0.5609642 0.6531538 0.8082029 0.8644005 0.8819947 0.9521870
## Cluster 2 0.4155220 0.4782170 0.4849912 0.5073079 0.6149150 0.7805660 0.9010323
## Cluster 3 0.6199191 0.6225092 0.6573248 0.7612567 0.7537418 0.7973191 0.8550922
## Cluster 4 0.4943682 0.5487906 0.5681047 0.6036968 0.6640469 0.7118267 0.6640830
## Cluster 5 0.3922759 0.4374267 0.4522716 0.4775431 0.4989957 0.5917888 0.6663750
##
                 21735
                           21736
                                     21737
                                               21738
                                                          21739
                                                                    21740
                                                                              21741
## Cluster 1 0.9529602 0.9464072 0.8722706 0.7899284 0.7195968 0.6918448 0.6565146
## Cluster 2 0.9515630 0.9929267 0.9714311 0.8447390 0.8177126 0.7582698 0.7024370
## Cluster 3 0.9132624 0.9033645 0.9373986 0.8875177 0.8379560 0.8105716 0.7530440
## Cluster 4 0.6908773 0.6571588 0.5945451 0.5665596 0.5395090 0.4956065 0.4697220
## Cluster 5 0.7308836 0.7207371 0.6785819 0.6526164 0.6331724 0.6245431 0.6552500
                 21742
                           21743
                                     21744
                                               21745
                                                          21746
                                                                    21747
## Cluster 1 0.5890928 0.5166021 0.4332215 0.3535066 0.2895212 0.2444496 0.2180411
## Cluster 2 0.6027977 0.5603666 0.4963578 0.4119795 0.3193138 0.2743314 0.2227185
## Cluster 3 0.7075674 0.6448567 0.5728000 0.4736057 0.4095745 0.3504837 0.3066667
## Cluster 4 0.4292238 0.3842347 0.3579422 0.3034043 0.2721986 0.2580614 0.2538412
## Cluster 5 0.6186034 0.6847586 0.6660819 0.5400862 0.4830259 0.4657112 0.3727888
##
                 21749
                           21750
                                     21751
                                               21752
                                                          21753
                                                                    21754
                                                                              21755
## Cluster 1 0.2022082 0.1878886 0.1828183 0.1751220 0.1729721 0.1672255 0.1721804
## Cluster 2 0.2030440 0.1913402 0.1828299 0.1671730 0.1603021 0.1694106 0.2009941
## Cluster 3 0.2739319 0.2482965 0.2379574 0.2339759 0.2191277 0.2076979 0.2128383
## Cluster 4 0.2490650 0.2201336 0.1964332 0.2029242 0.2408628 0.2645271 0.2848231
## Cluster 5 0.3381940 0.3015216 0.3040431 0.2566379 0.2446681 0.2614957 0.2631940
                                                          21760
                 21756
                           21757
                                     21758
                                               21759
                                                                    21761
                                                                              21762
## Cluster 1 0.1764284 0.1720584 0.1813966 0.2045981 0.2604682 0.3539509 0.4366578
## Cluster 2 0.1919296 0.2007214 0.2124604 0.2036569 0.2418827 0.2694223 0.3158768
## Cluster 3 0.2197617 0.2456156 0.2270738 0.2295348 0.2480965 0.2956624 0.3560043
## Cluster 4 0.2948953 0.3121336 0.2964440 0.3450361 0.4100578 0.4406859 0.5625415
## Cluster 5 0.2442241 0.2653621 0.2540733 0.2724698 0.2917543 0.3191509 0.3302845
                 21763
                           21764
                                     21765
                                               21766
                                                          21767
                                                                    21768
                                                                              21769
## Cluster 1 0.5102069 0.6337838 0.7824390 0.7647958 0.8045385 0.7960385 0.8081976
## Cluster 2 0.3698563 0.4467155 0.4574721 0.4836188 0.5493255 0.5300176 0.4755103
## Cluster 3 0.4406950 0.5102000 0.5801915 0.6433716 0.7235376 0.7690667 0.7885206
## Cluster 4 0.5525632 0.5841805 0.6671949 0.6462347 0.6509314 0.6817004 0.7014332
## Cluster 5 0.3924310 0.3888836 0.4314310 0.4210776 0.4420603 0.4788578 0.4585388
                                                          21774
##
                 21770
                           21771
                                     21772
                                               21773
                                                                    21775
                                                                              21776
## Cluster 1 0.8351512 0.8130995 0.8038276 0.7016764 0.6799085 0.6567865 0.6596897
## Cluster 2 0.5072815 0.5442111 0.4886158 0.4692287 0.4850792 0.4607889 0.5091026
## Cluster 3 0.7969489 0.8219078 0.8714340 0.7998879 0.7607291 0.7063021 0.7007362
## Cluster 4 0.6967437 0.6752166 0.6216245 0.5369928 0.5121877 0.5554513 0.5429747
## Cluster 5 0.4833103 0.4977629 0.4683491 0.4491552 0.3892888 0.4057414 0.4418233
##
                 21777
                           21778
                                     21779
                                               21780
                                                          21781
                                                                    21782
                                                                              21783
```

```
## Cluster 1 0.6310027 0.6305239 0.7218899 0.7912984 0.8158727 0.8909973 0.9769218
## Cluster 2 0.4633284 0.5094516 0.5686246 0.6523959 0.7176540 0.7829267 0.8980821
## Cluster 3 0.7269191 0.6645574 0.7013546 0.7239191 0.7394794 0.8043589 0.8986298
## Cluster 4 0.6122527 0.6784982 0.6662022 0.6662310 0.6112058 0.6831119 0.7634152
## Cluster 5 0.4925129 0.4355690 0.4813578 0.5289957 0.5404957 0.6290819 0.7312371
                 21784
                           21785
                                                         21788
##
                                     21786
                                               21787
                                                                    21789
                                                                              21790
## Cluster 1 0.9397679 0.8716154 0.8432401 0.7946114 0.7070557 0.6241233 0.5197599
## Cluster 2 0.9910587 0.8914604 0.8713079 0.8876481 0.8076276 0.7270528 0.6459032
## Cluster 3 0.9349035 0.8988213 0.8495759 0.8452965 0.8166809 0.7386213 0.6925149
## Cluster 4 0.7671949 0.6750903 0.6622635 0.6581336 0.5884982 0.5028809 0.4750686
  Cluster 5 0.6825862 0.6838707 0.7728836 0.7174095 0.7549440 0.7374914 0.7843793
                           21792
                                     21793
                                               21794
                 21791
                                                         21795
                                                                    21796
                                                                              21797
## Cluster 1 0.4180902 0.3479801 0.2620836 0.2223448 0.1834947 0.1642931 0.1591194
## Cluster 2 0.5443930 0.4401056 0.3043431 0.2475953 0.2128270 0.1787126 0.1599091
## Cluster 3 0.5960170 0.5075887 0.4282794 0.3511574 0.2833177 0.2448723 0.2364738
## Cluster 4 0.3758845 0.3222816 0.2705704 0.2388520 0.2279422 0.2249025 0.2155415
## Cluster 5 0.7560905 0.6957414 0.5949440 0.5241810 0.3784052 0.3288491 0.2855302
##
                 21798
                           21799
                                     21800
                                               21801
                                                         21802
                                                                    21803
                                                                              21804
## Cluster 1 0.1567401 0.1588554 0.1583448 0.1657308 0.1623435 0.1756671 0.1770822
## Cluster 2 0.1493490 0.1507566 0.1438915 0.1415689 0.1505279 0.1752610 0.1738534
## Cluster 3 0.2044170 0.2042936 0.2039092 0.1932043 0.1910326 0.2046667 0.2200142
## Cluster 4 0.2054152 0.1945199 0.1875162 0.2275596 0.2768087 0.3047762 0.3589495
## Cluster 5 0.2512155 0.2693664 0.2293664 0.2289741 0.2316638 0.2313190 0.2498405
                 21805
                           21806
                                     21807
                                               21808
                                                         21809
                                                                    21810
## Cluster 1 0.1960013 0.2398992 0.3712202 0.5531393 0.5592467 0.5232374 0.5083355
## Cluster 2 0.2855279 0.3188006 0.4522933 0.5091173 0.4374428 0.3317771 0.2861261
## Cluster 3 0.2505716 0.2786454 0.3437206 0.4173957 0.4573106 0.4358099 0.3895773
## Cluster 4 0.4331877 0.6084838 0.7430758 0.7177798 0.6418123 0.5367798 0.5132130
## Cluster 5 0.2720776 0.2944741 0.3872974 0.4744440 0.4409871 0.4071552 0.3584310
##
                 21812
                           21813
                                     21814
                                               21815
                                                         21816
                                                                    21817
                                                                              21818
## Cluster 1 0.4972135 0.5060875 0.4866074 0.4397109 0.3961658 0.4123515 0.4550345
## Cluster 2 0.2547801 0.2534809 0.2545953 0.2294751 0.2592199 0.2537419 0.2390880
## Cluster 3 0.4226128 0.4139887 0.4324071 0.4841560 0.4875248 0.4572624 0.4680582
## Cluster 4 0.4435199 0.4227076 0.3880253 0.3593321 0.3705776 0.3620108 0.4033430
## Cluster 5 0.2982500 0.3166121 0.3059397 0.3090733 0.3309181 0.3206164 0.3545129
                           21820
                                                         21823
                 21819
                                     21821
                                               21822
                                                                    21824
## Cluster 1 0.4526326 0.3971326 0.4187639 0.4019403 0.4427653 0.4643037 0.5235332
## Cluster 2 0.2526070 0.2644106 0.2234282 0.2286364 0.2407771 0.2669355 0.3024076
## Cluster 3 0.5044553 0.5110894 0.5001078 0.4692482 0.5424794 0.5847801 0.6504950
## Cluster 4 0.4032888 0.3840939 0.3984007 0.3963249 0.4191697 0.4169567 0.5414549
## Cluster 5 0.3190905 0.2938966 0.2801681 0.2771724 0.2921078 0.2996681 0.2929957
                 21826
                           21827
                                     21828
                                               21829
                                                         21830
                                                                    21831
                                                                              21832
## Cluster 1 0.6555729 0.8182653 0.8876790 0.8717454 0.8346021 0.9754549 0.9951446
## Cluster 2 0.3553519 0.3863050 0.5065924 0.6151935 0.7953812 0.9598387 1.0027859
## Cluster 3 0.6826142 0.6788582 0.7120340 0.6921135 0.7302184 0.8847418 0.8911504
## Cluster 4 0.5937906 0.6717581 0.7126859 0.6784838 0.6830722 0.7942599 0.7132563
## Cluster 5 0.3370603 0.4231164 0.4258233 0.5471552 0.5242328 0.6226379 0.7203017
                           21834
                                     21835
                                               21836
##
                 21833
                                                         21837
                                                                    21838
                                                                              21839
## Cluster 1 0.9577440 0.9247692 0.8569602 0.7342215 0.6528117 0.5642003 0.4529602
## Cluster 2 0.9781466 1.0026276 0.9471584 0.9057654 0.7785689 0.6834076 0.5775484
## Cluster 3 0.8895858 0.8844695 0.8633546 0.8102071 0.7530496 0.7230426 0.6228142
## Cluster 4 0.7331949 0.6695415 0.6648448 0.5688953 0.5376282 0.4632274 0.3907401
## Cluster 5 0.7278578 0.6947198 0.6954397 0.6479310 0.6765388 0.6680129 0.7445388
##
                 21840
                           21841
                                     21842
                                               21843
                                                         21844
                                                                    21845
                                                                              21846
```

```
## Cluster 1 0.3533594 0.2698143 0.2248992 0.1823687 0.1615756 0.1570902 0.1579483
## Cluster 2 0.4394340 0.3070117 0.2291613 0.1972610 0.1730557 0.1583109 0.1574663
## Cluster 3 0.5204255 0.4180624 0.3245957 0.2582142 0.2255617 0.2222794 0.2093972
## Cluster 4 0.3261588 0.2742671 0.2454368 0.2324188 0.2165018 0.2146931 0.1931949
## Cluster 5 0.6825819 0.5637586 0.4492414 0.3731940 0.2954052 0.2828621 0.2574914
                                                         21851
##
                 21847
                           21848
                                     21849
                                               21850
                                                                    21852
## Cluster 1 0.1502454 0.1505159 0.1511989 0.1539828 0.1698873 0.1796883 0.2208050
## Cluster 2 0.1445777 0.1417830 0.1374194 0.1559355 0.1676217 0.1966979 0.2901261
## Cluster 3 0.2004567 0.1964624 0.1956043 0.2018908 0.2053787 0.2252539 0.2576553
## Cluster 4 0.1925523 0.2056354 0.2236751 0.2608087 0.2849856 0.3384188 0.4209603
  Cluster 5 0.2361983 0.2375388 0.2356207 0.2433922 0.2400690 0.2200991 0.2917457
                                               21857
                 21854
                           21855
                                     21856
                                                         21858
                                                                    21859
                                                                              21860
## Cluster 1 0.2441698 0.4199363 0.6077944 0.5611817 0.4985902 0.5140995 0.5228674
## Cluster 2 0.3257947 0.4705689 0.5514282 0.4956041 0.3619971 0.2861672 0.2451584
## Cluster 3 0.2899929 0.3548043 0.4308440 0.4777092 0.4267177 0.4371887 0.4265787
## Cluster 4 0.6849386 0.8435523 0.8712888 0.6492780 0.5693574 0.4946282 0.4213718
## Cluster 5 0.3103621 0.3840000 0.4506250 0.4470991 0.3991638 0.3297198 0.3687069
##
                 21861
                           21862
                                     21863
                                               21864
                                                         21865
                                                                    21866
                                                                              21867
## Cluster 1 0.4851048 0.4356008 0.4238382 0.4175106 0.4111645 0.4205889 0.4455875
## Cluster 2 0.2313783 0.2138739 0.2125982 0.2317126 0.2150352 0.2167185 0.2304604
## Cluster 3 0.4438638 0.4347518 0.4292709 0.4199532 0.4452284 0.4853915 0.4967589
## Cluster 4 0.4107581 0.3614188 0.3496390 0.3256751 0.3655090 0.3738484 0.4110433
## Cluster 5 0.3484310 0.3430043 0.3003147 0.3710690 0.3050043 0.3244353 0.3770819
                 21868
                           21869
                                     21870
                                               21871
                                                         21872
                                                                    21873
## Cluster 1 0.3804005 0.4067082 0.4104615 0.4410212 0.4756008 0.5027613 0.6156154
## Cluster 2 0.2525308 0.2268504 0.2170235 0.2442786 0.2498299 0.2779560 0.3105455
## Cluster 3 0.4736326 0.4677177 0.4446355 0.4919674 0.5593546 0.6335972 0.6938596
## Cluster 4 0.3733394 0.3584801 0.3475018 0.4262888 0.4548303 0.5593249 0.6362996
## Cluster 5 0.3309353 0.2875172 0.2612716 0.2620776 0.2929741 0.2850991 0.3038491
                 21875
                           21876
                                     21877
                                               21878
                                                         21879
                                                                    21880
                                                                              21881
## Cluster 1 0.7626326 0.8879204 0.9157427 0.9186525 0.9842931 0.9651379 0.9287361
## Cluster 2 0.3744575 0.5192405 0.6672610 0.7636100 0.9516305 1.0105806 0.9977947
## Cluster 3 0.7400284 0.7401277 0.7622837 0.7954780 0.9142780 0.9606071 0.8986582
## Cluster 4 0.6822455 0.6868159 0.7137220 0.7070650 0.7575379 0.7521408 0.7783718
## Cluster 5 0.3637543 0.5012112 0.4807457 0.5411121 0.6852414 0.7372198 0.7312198
                                     21884
                                               21885
                 21882
                           21883
                                                         21886
                                                                    21887
                                                                              21888
## Cluster 1 0.8945743 0.8332188 0.7787639 0.6779310 0.5547202 0.4828806 0.3765690
## Cluster 2 0.9992962 0.9648152 0.9131085 0.8471290 0.7281584 0.5951173 0.4376305
## Cluster 3 0.8902496 0.8528142 0.8648199 0.7751248 0.7198284 0.6354624 0.5341050
## Cluster 4 0.6749856 0.6104874 0.6238556 0.5679783 0.4627509 0.4093285 0.3321661
## Cluster 5 0.7424655 0.7076940 0.7626034 0.6856121 0.6495948 0.6905000 0.6589741
                 21889
                           21890
                                     21891
                                               21892
                                                         21893
                                                                    21894
                                                                              21895
## Cluster 1 0.2807294 0.2338236 0.1909801 0.1706830 0.1610915 0.1630968 0.1575080
## Cluster 2 0.2917566 0.2338739 0.1843548 0.1606569 0.1543021 0.1504927 0.1504545
## Cluster 3 0.4287844 0.3174723 0.2718255 0.2384454 0.2165248 0.2111277 0.2045489
## Cluster 4 0.2664440 0.2409783 0.2181697 0.2108448 0.2164116 0.2089819 0.1990758
## Cluster 5 0.5656250 0.4615431 0.3945000 0.3206810 0.2783190 0.2418750 0.2372888
                                     21898
                                                         21900
##
                 21896
                           21897
                                               21899
                                                                    21901
                                                                              21902
## Cluster 1 0.1576804 0.1591207 0.1626446 0.1655066 0.1721751 0.1950928 0.2605769
## Cluster 2 0.1384809 0.1420762 0.1531848 0.1905748 0.1856540 0.2528152 0.3162581
## Cluster 3 0.2027660 0.1949603 0.2136057 0.1973816 0.2150823 0.2351007 0.2935674
## Cluster 4 0.1913430 0.2246101 0.2505884 0.2854801 0.3355307 0.3873718 0.5911264
## Cluster 5 0.2433793 0.2437500 0.2458922 0.2353060 0.2453190 0.2825948 0.2670431
##
                 21903
                           21904
                                     21905
                                               21906
                                                         21907
                                                                    21908
                                                                              21909
```

```
## Cluster 1 0.4057003 0.5831326 0.6304111 0.5616777 0.5268886 0.5140332 0.4813568
## Cluster 2 0.4620205 0.5613695 0.4969912 0.3641672 0.3161026 0.2327830 0.2532317
## Cluster 3 0.3719560 0.4693730 0.4893177 0.4944567 0.4208922 0.4269546 0.4576610
## Cluster 4 0.7544513 0.8594729 0.7634440 0.5771480 0.5087401 0.4850830 0.3900433
## Cluster 5 0.3620086 0.4716293 0.4390302 0.3686767 0.3857974 0.3561466 0.3402759
                                                          21914
                                                                    21915
                 21910
                           21911
                                     21912
                                               21913
## Cluster 1 0.4343130 0.4157905 0.4189416 0.4497878 0.4471711 0.4766048 0.4567599
## Cluster 2 0.2565718 0.2446129 0.2342845 0.2628094 0.2613900 0.2899003 0.3035161
## Cluster 3 0.4370823 0.4335816 0.4690057 0.4915291 0.5272780 0.5657376 0.5413404
## Cluster 4 0.3972238 0.3879675 0.4109314 0.4044440 0.3998700 0.3527942 0.3443610
  Cluster 5 0.3575086 0.3079698 0.3113405 0.3304310 0.3039138 0.3814138 0.3174957
                                     21919
                                               21920
                 21917
                           21918
                                                          21921
                                                                    21922
                                                                              21923
## Cluster 1 0.4478714 0.4571021 0.4750995 0.5648952 0.6434947 0.7444390 0.8501817
## Cluster 2 0.2562463 0.2343900 0.2470117 0.2970792 0.3652933 0.3913666 0.4138710
## Cluster 3 0.5007943 0.5332440 0.5858014 0.6471475 0.7190298 0.7552794 0.7772000
## Cluster 4 0.3985560 0.4032094 0.4394729 0.5049747 0.5589567 0.6516498 0.7024657
## Cluster 5 0.3287543 0.3178836 0.3788017 0.3863276 0.4101379 0.4336034 0.4639655
##
                 21924
                           21925
                                     21926
                                                21927
                                                          21928
                                                                    21929
                                                                              21930
## Cluster 1 0.9630995 0.9977281 0.9639496 1.0260027 0.9864854 0.9074987 0.8871618
## Cluster 2 0.5942199 0.7631760 0.8406979 1.0833636 1.1108710 1.0139208 1.0298123
## Cluster 3 0.7733106 0.8051603 0.8082922 0.9035816 0.9240014 0.9206610 0.8811149
## Cluster 4 0.7499386 0.7451444 0.7230181 0.8510144 0.7469206 0.6715090 0.6658592
## Cluster 5 0.5010517 0.5730259 0.5919353 0.6599914 0.6608147 0.6744267 0.6697155
                 21931
                           21932
                                     21933
                                               21934
                                                          21935
                                                                    21936
## Cluster 1 0.8442255 0.7997003 0.6631419 0.5670729 0.4870424 0.3842042 0.2918475
## Cluster 2 0.9766950 0.9542082 0.8714018 0.7465748 0.5830821 0.4494721 0.3506452
## Cluster 3 0.8538794 0.8132085 0.7826979 0.6936142 0.6396014 0.5440553 0.4386482
## Cluster 4 0.6566101 0.5585523 0.5242022 0.4810397 0.3949639 0.3547726 0.2765235
## Cluster 5 0.6817155 0.6793578 0.6443319 0.6297672 0.6519698 0.6063448 0.5285819
                 21938
                           21939
                                     21940
                                               21941
                                                          21942
                                                                    21943
                                                                              21944
## Cluster 1 0.2294947 0.1915159 0.1757891 0.1628780 0.1584138 0.1573249 0.1521340
## Cluster 2 0.2500088 0.2149707 0.1687830 0.1601466 0.1456364 0.1439062 0.1480674
## Cluster 3 0.3690922 0.2930355 0.2592199 0.2220440 0.1995149 0.1961901 0.1982809
## Cluster 4 0.2552635 0.2262491 0.2101191 0.2200758 0.2037978 0.1890794 0.2150000
## Cluster 5 0.4866121 0.4014655 0.3196078 0.3049009 0.2649353 0.2628190 0.2524741
                           21946
                                                          21949
                                               21948
                 21945
                                     21947
                                                                    21950
                                                                              21951
## Cluster 1 0.1525106 0.1520305 0.1676737 0.1743886 0.2120491 0.2689005 0.4136379
## Cluster 2 0.1413490 0.1484047 0.1624839 0.1752463 0.2675836 0.3223460 0.4774311
## Cluster 3 0.1853348 0.1900241 0.1979631 0.2102085 0.2435504 0.2849305 0.3436922
## Cluster 4 0.2509856 0.2573032 0.2783791 0.3505812 0.3946679 0.6353249 0.7220325
## Cluster 5 0.2442371 0.2480948 0.2520259 0.2589224 0.2803578 0.2819095 0.3913319
                           21953
                 21952
                                     21954
                                               21955
                                                          21956
                                                                    21957
                                                                              21958
## Cluster 1 0.6056592 0.6077361 0.5403846 0.5153886 0.4746976 0.4571034 0.4963103
## Cluster 2 0.5443666 0.5193724 0.3948827 0.2633666 0.2629795 0.2327097 0.2618270
## Cluster 3 0.4377362 0.4834355 0.4764184 0.4490979 0.4299816 0.4380695 0.4504539
## Cluster 4 0.8239639 0.7277581 0.5670542 0.4126462 0.4341264 0.4221841 0.4206390
## Cluster 5 0.4724526 0.4522586 0.4152716 0.3392802 0.3224526 0.2965474 0.3058017
                           21960
##
                 21959
                                     21961
                                               21962
                                                          21963
                                                                    21964
                                                                              21965
## Cluster 1 0.4498939 0.4128382 0.4209642 0.4141061 0.4275584 0.3966711 0.4189072
## Cluster 2 0.2296921 0.2271701 0.2545337 0.2624223 0.2710674 0.2734282 0.2414780
## Cluster 3 0.4253504 0.4400922 0.4836865 0.4891149 0.5232596 0.5294993 0.4804667
## Cluster 4 0.3435848 0.3323935 0.3736354 0.4057978 0.4285523 0.3844585 0.3517401
## Cluster 5 0.2803060 0.3269526 0.3082629 0.2997716 0.3369095 0.2913103 0.2989569
##
                 21966
                           21967
                                     21968
                                               21969
                                                          21970
                                                                    21971
                                                                              21972
```

```
## Cluster 1 0.4249536 0.4441684 0.5207095 0.6194469 0.7468024 0.8675928 0.9578806
## Cluster 2 0.2130733 0.2594604 0.2703636 0.3161232 0.3784282 0.4609238 0.5467097
## Cluster 3 0.4901390 0.5545858 0.6150596 0.6915376 0.7583617 0.7457504 0.7541589
## Cluster 4 0.3794657 0.4286859 0.4688664 0.5750000 0.6866570 0.7176209 0.7014332
## Cluster 5 0.3123836 0.2831422 0.3494655 0.3810819 0.4119009 0.3891897 0.4370302
                           21974
                                               21976
                                                         21977
                 21973
                                     21975
                                                                    21978
## Cluster 1 0.9740040 0.9338143 1.0110451 0.9244881 0.8782467 0.8807321 0.8405332
## Cluster 2 0.6873871 0.8732874 1.0048416 1.0213050 0.9960821 0.9462757 0.9707302
## Cluster 3 0.8187674 0.7885475 0.8736340 0.9004199 0.8887291 0.8811376 0.8470950
## Cluster 4 0.7930975 0.7254079 0.7043285 0.6828845 0.7341697 0.6636318 0.6644946
  Cluster 5 0.5501336 0.6719526 0.7655216 0.7268793 0.6886595 0.7500474 0.7321940
                                     21982
                 21980
                           21981
                                               21983
                                                         21984
                                                                    21985
                                                                              21986
## Cluster 1 0.7261525 0.7073806 0.5713554 0.4774695 0.3662851 0.2831790 0.2188382
## Cluster 2 0.8972845 0.8002053 0.7285748 0.5796862 0.4556041 0.3294985 0.2275455
## Cluster 3 0.8168496 0.7846723 0.7038326 0.6163858 0.5218965 0.4434468 0.3532837
## Cluster 4 0.5695162 0.5412202 0.4526498 0.4378917 0.3530542 0.3114946 0.2460722
## Cluster 5 0.7120086 0.7133534 0.7005345 0.7592629 0.6705043 0.5557672 0.4686078
##
                 21987
                           21988
                                     21989
                                               21990
                                                         21991
                                                                    21992
                                                                              21993
## Cluster 1 0.1869098 0.1630318 0.1615106 0.1560676 0.1506074 0.1524403 0.1534894
## Cluster 2 0.1825689 0.1659120 0.1531584 0.1450968 0.1434575 0.1380909 0.1528798
## Cluster 3 0.2821050 0.2490950 0.2130156 0.2008738 0.1996794 0.1931730 0.1887546
## Cluster 4 0.2224368 0.2224549 0.2214260 0.2178448 0.2127365 0.1949422 0.2346065
## Cluster 5 0.4077974 0.3518276 0.3063664 0.2860474 0.2754741 0.2859698 0.2976207
                 21994
                           21995
                                     21996
                                               21997
                                                         21998
                                                                    21999
## Cluster 1 0.1613276 0.1796804 0.1806525 0.2041379 0.2479456 0.4035066 0.5961141
## Cluster 2 0.1639384 0.1696041 0.1894370 0.2743578 0.3081554 0.4526510 0.5368328
## Cluster 3 0.1911688 0.1957106 0.2087546 0.2489035 0.2843064 0.3672638 0.4400936
## Cluster 4 0.2485776 0.2480469 0.3401480 0.4237762 0.6225162 0.7252996 0.7713646
## Cluster 5 0.2736681 0.2684009 0.2671940 0.3080776 0.3353750 0.3857629 0.4699138
                 22001
                           22002
                                     22003
                                               22004
                                                         22005
                                                                    22006
                                                                              22007
## Cluster 1 0.5836101 0.5204509 0.4870239 0.4732878 0.4431777 0.4505159 0.4122958
## Cluster 2 0.4648358 0.3793724 0.3394575 0.2974282 0.3099531 0.2631584 0.2690381
## Cluster 3 0.4919858 0.4553121 0.4409688 0.4583291 0.4297759 0.4177248 0.4327121
## Cluster 4 0.7231516 0.5928845 0.5165596 0.4581986 0.4423177 0.3443177 0.3273718
## Cluster 5 0.4572069 0.3929224 0.3183190 0.3452629 0.3342155 0.3347672 0.3477716
                           22009
                                     22010
                                               22011
                                                         22012
                 22008
                                                                    22013
                                                                              22014
## Cluster 1 0.3896048 0.3848939 0.4270849 0.4529443 0.4269867 0.4289642 0.4323820
## Cluster 2 0.2700645 0.2585103 0.2489824 0.2784604 0.2439648 0.2316804 0.2460235
## Cluster 3 0.4431319 0.4502624 0.5227163 0.5164851 0.4829787 0.5105050 0.5177631
## Cluster 4 0.3307329 0.3657978 0.3574513 0.3577942 0.3962563 0.3994549 0.3793357
## Cluster 5 0.3464655 0.3325043 0.3478060 0.3676034 0.3406379 0.3308879 0.3036940
                 22015
                           22016
                                     22017
                                               22018
                                                         22019
                                                                    22020
                                                                              22021
## Cluster 1 0.4343077 0.4800769 0.5230279 0.6184549 0.7033289 0.8480981 0.8798647
## Cluster 2 0.2740674 0.2948915 0.3292229 0.4159032 0.4372669 0.5625806 0.6913050
## Cluster 3 0.5265121 0.5717887 0.5987177 0.6661291 0.6901191 0.7259418 0.7554298
## Cluster 4 0.4154152 0.4680181 0.5548412 0.5302852 0.6067220 0.6912960 0.7169170
## Cluster 5 0.3547759 0.3697026 0.3357802 0.3557198 0.3851379 0.4180991 0.4589052
                           22023
                                                         22026
##
                 22022
                                     22024
                                               22025
                                                                    22027
                                                                              22028
## Cluster 1 0.8815716 0.9418806 0.8904854 0.8842241 0.7982162 0.8066233 0.7467745
## Cluster 2 0.8280557 0.9264633 0.9206158 0.9375015 0.9812199 0.9881085 0.8215836
## Cluster 3 0.8262255 0.8524440 0.8699319 0.9104113 0.8573787 0.8162199 0.7837234
## Cluster 4 0.6317726 0.7408700 0.7448989 0.7206462 0.6575812 0.6454224 0.5892852
## Cluster 5 0.5946293 0.7090474 0.6606638 0.6562586 0.7026983 0.7055302 0.6698750
##
                 22029
                           22030
                                     22031
                                               22032
                                                         22033
                                                                    22034
                                                                              22035
```

```
## Cluster 1 0.6808302 0.5998528 0.5437414 0.4499403 0.3558607 0.2841300 0.2315491
## Cluster 2 0.7996334 0.7238123 0.6090352 0.5223226 0.3897713 0.2837625 0.2381994
## Cluster 3 0.7580468 0.7261589 0.6801546 0.6122865 0.5125390 0.4353872 0.3648695
## Cluster 4 0.4946426 0.4646931 0.4339495 0.3832310 0.3336968 0.2983791 0.2568700
## Cluster 5 0.7093836 0.6656767 0.6990474 0.6963664 0.6032759 0.5209784 0.4514138
                 22036
                           22037
                                     22038
                                               22039
                                                          22040
                                                                    22041
##
                                                                              22042
## Cluster 1 0.2058528 0.1775902 0.1788700 0.1680080 0.1658528 0.1653117 0.1629761
## Cluster 2 0.2113196 0.1817478 0.1605484 0.1610792 0.1532786 0.1509648 0.1631056
## Cluster 3 0.2990794 0.2547461 0.2337206 0.2237603 0.2117390 0.2133631 0.1977135
## Cluster 4 0.2212058 0.2289675 0.2223682 0.2034946 0.1970866 0.2433935 0.2591733
  Cluster 5 0.3852457 0.3454052 0.2868966 0.2828966 0.2700086 0.2674353 0.2605345
                           22044
                                     22045
                                               22046
                 22043
                                                          22047
                                                                    22048
                                                                              22049
## Cluster 1 0.1695438 0.1646923 0.1807294 0.1921446 0.2310398 0.2967308 0.3814045
## Cluster 2 0.1612082 0.1679443 0.1919648 0.2101290 0.2389971 0.2838035 0.3523050
## Cluster 3 0.2037206 0.2168965 0.2145177 0.2267220 0.2349674 0.2603191 0.3302525
## Cluster 4 0.2593574 0.2873538 0.3091372 0.3794440 0.4523357 0.5176318 0.6399711
## Cluster 5 0.2742026 0.2395733 0.2433405 0.2720647 0.2913836 0.3045345 0.2586638
##
                 22050
                           22051
                                     22052
                                               22053
                                                          22054
                                                                    22055
                                                                              22056
## Cluster 1 0.4888979 0.5956021 0.6332109 0.6445318 0.7115265 0.6849032 0.6404934
## Cluster 2 0.3562141 0.4265015 0.4354927 0.5178387 0.4921290 0.4319062 0.4430792
## Cluster 3 0.3909532 0.4470695 0.4673504 0.5845333 0.6274780 0.5926681 0.6191007
## Cluster 4 0.5821552 0.6268339 0.5957040 0.5632202 0.5817148 0.6452852 0.6095307
## Cluster 5 0.3102586 0.3675302 0.4213922 0.3965690 0.4422371 0.4282371 0.4570862
                 22057
                           22058
                                     22059
                                               22060
                                                          22061
                                                                    22062
## Cluster 1 0.6428289 0.6540279 0.7116764 0.6329576 0.6168528 0.5868581 0.5883064
## Cluster 2 0.4246422 0.4410469 0.4997683 0.4403079 0.4125689 0.3707654 0.3890968
## Cluster 3 0.6563702 0.7010227 0.6949589 0.6463773 0.5978043 0.6041461 0.6143631
## Cluster 4 0.5898628 0.5448303 0.5654188 0.4606245 0.4793321 0.4567184 0.5003213
## Cluster 5 0.4364353 0.4485776 0.4964569 0.4791336 0.4062759 0.4172931 0.4345043
##
                 22064
                           22065
                                     22066
                                               22067
                                                          22068
                                                                    22069
                                                                              22070
## Cluster 1 0.5538329 0.5518674 0.6320159 0.7332374 0.8896247 0.9479390 0.9315013
## Cluster 2 0.4448416 0.4612434 0.5520587 0.5683812 0.6720997 0.7493109 0.8466481
## Cluster 3 0.6224667 0.6286071 0.6507532 0.6872553 0.7669915 0.7952298 0.8758482
## Cluster 4 0.4951047 0.5539206 0.5811047 0.6675126 0.7747329 0.7166643 0.7039242
## Cluster 5 0.4318276 0.3774397 0.4285647 0.5025560 0.4806983 0.5427026 0.6637845
                           22072
                                     22073
                                               22074
                                                          22075
                 22071
                                                                    22076
                                                                              22077
## Cluster 1 0.9510531 0.8997851 0.8388236 0.8138793 0.7624721 0.6955716 0.6721485
## Cluster 2 0.9355513 1.0061085 0.9897742 0.8820264 0.8435982 0.7975572 0.7594545
## Cluster 3 0.9672369 0.9408000 0.8584965 0.8418567 0.8137589 0.7815333 0.7643844
## Cluster 4 0.7048592 0.7228736 0.6862563 0.6241805 0.5503466 0.5204332 0.5047076
## Cluster 5 0.7412543 0.7351336 0.7692069 0.7383836 0.7629353 0.7254698 0.6807586
                 22078
                           22079
                                     22080
                                               22081
                                                          22082
                                                                    22083
                                                                              22084
## Cluster 1 0.5881936 0.5191817 0.4440265 0.3759443 0.2940265 0.2499151 0.2214854
## Cluster 2 0.6992991 0.6201789 0.4956686 0.3867683 0.3036657 0.2443138 0.2063666
## Cluster 3 0.7046270 0.6418766 0.5609631 0.4653135 0.4012383 0.3579603 0.3097390
## Cluster 4 0.4589170 0.3926895 0.3631913 0.3165668 0.2944043 0.2458014 0.2519025
## Cluster 5 0.6383362 0.6413276 0.7034138 0.5822931 0.5447284 0.4783793 0.4000259
                           22086
                                     22087
                                               22088
                                                          22089
##
                 22085
                                                                    22090
                                                                              22091
## Cluster 1 0.1966220 0.1777029 0.1700066 0.1706804 0.1601883 0.1563223 0.1672918
## Cluster 2 0.1904985 0.1687478 0.1679062 0.1605484 0.1533372 0.1606100 0.1728856
## Cluster 3 0.2699305 0.2453915 0.2328908 0.2178596 0.2080837 0.1991716 0.1999191
## Cluster 4 0.2381877 0.2328809 0.2234621 0.2315451 0.2519964 0.2676534 0.2466643
## Cluster 5 0.3668147 0.3222845 0.2873922 0.2741293 0.2718664 0.2521379 0.2653879
##
                 22092
                           22093
                                     22094
                                               22095
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                                                                    22097
                                                                              22098
```

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## Cluster 1 0.1663329 0.1768992 0.1841989 0.2053886 0.2391048 0.3339509 0.4237984
## Cluster 2 0.1559208 0.1799853 0.1689824 0.2022375 0.2615073 0.3119355 0.3296686
## Cluster 3 0.2080340 0.2078071 0.2141957 0.2252553 0.2400965 0.2875532 0.3256723
## Cluster 4 0.2676968 0.3110036 0.3502816 0.3808917 0.4611300 0.5009567 0.5526679
## Cluster 5 0.2411767 0.2451250 0.2639612 0.2895345 0.3313793 0.3022629 0.3139095
                 22099
                           22100
                                     22101
                                               22102
                                                          22103
                                                                    22104
                                                                              22105
## Cluster 1 0.4947984 0.6006247 0.7394788 0.8227162 0.8212851 0.8233130 0.7965292
## Cluster 2 0.3769296 0.3976100 0.4626774 0.5228358 0.5289296 0.5316657 0.5561554
## Cluster 3 0.4045504 0.4747546 0.5725163 0.6310184 0.7066709 0.7305858 0.8162241
## Cluster 4 0.6385704 0.5917617 0.5922383 0.6878736 0.6311083 0.6335235 0.6147256
  Cluster 5 0.3270000 0.3579655 0.4117026 0.4302198 0.4524138 0.4151681 0.4300991
                           22107
                                     22108
                                               22109
                 22106
                                                          22110
                                                                    22111
                                                                              22112
## Cluster 1 0.8374098 0.8256698 0.7309973 0.6744894 0.6622440 0.6248263 0.6230411
## Cluster 2 0.5689912 0.5621466 0.5226188 0.5062698 0.4847537 0.4693138 0.4887390
## Cluster 3 0.8775319 0.8060326 0.8238695 0.8029489 0.7563574 0.7167730 0.6945631
## Cluster 4 0.6722347 0.6881769 0.6190578 0.5450108 0.5078051 0.5616570 0.5230578
## Cluster 5 0.4329914 0.4876250 0.4865302 0.4299397 0.3914310 0.4858491 0.4512802
##
                 22113
                           22114
                                     22115
                                               22116
                                                          22117
                                                                    22118
                                                                              22119
## Cluster 1 0.6737785 0.7499284 0.8029947 0.8594456 0.8445252 0.9524098 0.9537639
## Cluster 2 0.4925044 0.5933196 0.5888123 0.6695806 0.7942375 1.0069326 1.0226891
## Cluster 3 0.7209872 0.7035972 0.6963177 0.7533617 0.7835943 0.8227191 0.8780014
## Cluster 4 0.5674982 0.6135162 0.7272527 0.7152599 0.7145343 0.7883177 0.7769819
## Cluster 5 0.4590000 0.4577716 0.5165647 0.6066121 0.6079138 0.6470560 0.7547198
                 22120
                           22121
                                     22122
                                               22123
                                                          22124
                                                                    22125
## Cluster 1 0.9379894 0.8503395 0.8165451 0.7862798 0.7033886 0.6208130 0.5291724
## Cluster 2 0.9515982 0.9765953 0.9098798 0.9555630 0.8312141 0.7635513 0.6373812
## Cluster 3 0.8700043 0.8744284 0.8526624 0.8449844 0.7905801 0.7505121 0.6913362
## Cluster 4 0.7649567 0.6951877 0.6656787 0.6295704 0.5814477 0.5367112 0.4350505
## Cluster 5 0.7877629 0.7619224 0.8000776 0.8763836 0.7987457 0.7566336 0.7545517
##
                 22127
                           22128
                                     22129
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                                                          22131
                                                                    22132
                                                                              22133
## Cluster 1 0.4242719 0.3412334 0.2800796 0.2368966 0.1946724 0.1750199 0.1702175
## Cluster 2 0.5418680 0.3962698 0.3270469 0.2463607 0.2200088 0.1845103 0.1674252
## Cluster 3 0.6142582 0.5272865 0.4380922 0.3477518 0.2881489 0.2594823 0.2175050
## Cluster 4 0.3976606 0.3499711 0.3060181 0.2675379 0.2332924 0.2129675 0.2100614
## Cluster 5 0.6430345 0.6316940 0.5614914 0.4929224 0.4108060 0.3491250 0.3305388
                           22135
                                     22136
                                               22137
                                                          22138
                 22134
                                                                    22139
                                                                              22140
## Cluster 1 0.1638448 0.1576631 0.1553660 0.1571631 0.1610690 0.1670093 0.1631446
## Cluster 2 0.1514956 0.1516774 0.1434340 0.1476745 0.1740499 0.1798094 0.1771935
## Cluster 3 0.2039404 0.2034936 0.1894652 0.1843986 0.1922113 0.1933872 0.2188071
## Cluster 4 0.2140505 0.1905415 0.1974477 0.2351769 0.2711264 0.2805957 0.2999350
## Cluster 5 0.2862845 0.2423405 0.2406034 0.2353147 0.2346293 0.2236034 0.2244181
                 22141
                           22142
                                     22143
                                               22144
                                                          22145
                                                                    22146
                                                                              22147
## Cluster 1 0.2006273 0.2573581 0.3743886 0.5533568 0.6231180 0.5789005 0.4931737
## Cluster 2 0.2333109 0.2961408 0.4269795 0.4892375 0.4731760 0.3599619 0.3107243
## Cluster 3 0.2278752 0.2608809 0.3677844 0.4304284 0.4926709 0.4594199 0.4438908
## Cluster 4 0.3887148 0.5873682 0.7115523 0.8566101 0.6960469 0.5797256 0.4748087
## Cluster 5 0.2671940 0.2742974 0.4057716 0.4716767 0.4555733 0.4809095 0.3691940
                                     22150
##
                 22148
                           22149
                                               22151
                                                          22152
                                                                    22153
                                                                              22154
## Cluster 1 0.4982905 0.4808435 0.4597202 0.4490796 0.4352347 0.4707493 0.4661061
## Cluster 2 0.2602727 0.2572287 0.2604780 0.2380968 0.2480499 0.2522199 0.2613754
## Cluster 3 0.4293376 0.4264326 0.4115404 0.4371007 0.4730667 0.4755986 0.5089518
## Cluster 4 0.4302852 0.4562130 0.4109134 0.3665415 0.4092635 0.3884007 0.4200830
## Cluster 5 0.3377284 0.3312414 0.3387284 0.3205302 0.3308147 0.3053276 0.3338879
##
                 22155
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                                               22158
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                                                                    22160
                                                                              22161
```

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## Cluster 1 0.4838408 0.4629324 0.4497029 0.4451790 0.4875186 0.5211074 0.6085053
## Cluster 2 0.2535396 0.2541701 0.2654370 0.2562199 0.2889326 0.2983372 0.3714106
## Cluster 3 0.5402567 0.5116511 0.4792156 0.5245262 0.6077660 0.6530979 0.6695716
## Cluster 4 0.4338953 0.4131372 0.4379206 0.4640578 0.4851841 0.5540325 0.6313502
## Cluster 5 0.3820129 0.3589871 0.3240603 0.3342414 0.3709957 0.3734181 0.3792974
                 22162
                           22163
                                     22164
                                               22165
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                                                                              22168
## Cluster 1 0.7682361 0.9462745 1.0138820 1.0461671 0.9672480 1.0032334 0.9961989
## Cluster 2 0.4169032 0.4446100 0.5910117 0.7485220 0.9781672 1.0725865 1.0443607
## Cluster 3 0.7506624 0.7951901 0.8334014 0.8423418 0.8553844 0.9334085 0.9024454
## Cluster 4 0.6973069 0.7432527 0.7788592 0.8086931 0.8191047 0.8325379 0.7636354
  Cluster 5 0.4316767 0.4911293 0.5424009 0.5757759 0.6846940 0.7414914 0.7787112
                           22170
                                     22171
                                               22172
                 22169
                                                         22173
                                                                    22174
                                                                              22175
## Cluster 1 0.9292493 0.8941512 0.8095703 0.7702069 0.6907056 0.5759801 0.4802255
## Cluster 2 1.0742727 0.9878328 0.9906950 0.8981290 0.8139091 0.7143226 0.5471818
## Cluster 3 0.9116326 0.9095957 0.8605489 0.8089163 0.7955759 0.7410979 0.6562511
## Cluster 4 0.7388339 0.6679314 0.7045235 0.6093466 0.5465054 0.5056931 0.4205487
## Cluster 5 0.7938707 0.7772457 0.8233621 0.7719784 0.7219569 0.7653750 0.7761853
##
                 22176
                           22177
                                     22178
                                               22179
                                                         22180
                                                                    22181
                                                                              22182
## Cluster 1 0.3606127 0.2573992 0.2117586 0.1740106 0.1612931 0.1568554 0.1544297
## Cluster 2 0.4106716 0.2942375 0.2195073 0.1942053 0.1700674 0.1515249 0.1403343
## Cluster 3 0.5380057 0.4294922 0.3513277 0.2832085 0.2443688 0.2173035 0.2050099
## Cluster 4 0.3393971 0.2901300 0.2411480 0.2236029 0.2230939 0.2335451 0.2018087
## Cluster 5 0.7197026 0.5796552 0.4732112 0.3945388 0.3557328 0.3028060 0.2782069
                 22183
                           22184
                                     22185
                                               22186
                                                         22187
                                                                    22188
## Cluster 1 0.1490809 0.1515782 0.1483886 0.1512334 0.1563223 0.1690106 0.2010928
## Cluster 2 0.1450762 0.1388592 0.1343578 0.1534839 0.1641584 0.1745513 0.2733783
## Cluster 3 0.2035532 0.1957433 0.1931574 0.2082440 0.2032908 0.2144780 0.2279532
## Cluster 4 0.2028051 0.2085848 0.2414513 0.2722166 0.2554332 0.3241588 0.5260036
## Cluster 5 0.2561250 0.2407586 0.2386379 0.2313405 0.2790905 0.2461595 0.2702457
                 22190
                           22191
                                     22192
                                               22193
                                                         22194
                                                                    22195
                                                                              22196
## Cluster 1 0.2467387 0.4026472 0.5934032 0.5896658 0.5403939 0.5182613 0.4828302
## Cluster 2 0.3118035 0.4495073 0.5356158 0.4913666 0.3693988 0.3127859 0.2605191
## Cluster 3 0.2678482 0.3575787 0.4278128 0.4642709 0.4620043 0.4509305 0.4145830
## Cluster 4 0.6606643 0.8427942 0.8155415 0.6845126 0.5673574 0.4575848 0.4148412
## Cluster 5 0.3433793 0.4454009 0.4884052 0.5187845 0.4626767 0.4022155 0.3765647
                 22197
                           22198
                                     22199
                                                         22201
                                               22200
                                                                    22202
                                                                              22203
## Cluster 1 0.5039111 0.4550040 0.4389867 0.4309244 0.4260928 0.4751552 0.4583236
## Cluster 2 0.2312933 0.2095279 0.2344809 0.2430499 0.2553050 0.2339032 0.2660762
## Cluster 3 0.4421191 0.4378355 0.4852355 0.4561901 0.4724511 0.4806113 0.5288809
## Cluster 4 0.3606282 0.3263502 0.3854765 0.3817040 0.4153213 0.3898267 0.3809278
## Cluster 5 0.3216422 0.3395948 0.3084957 0.3115345 0.3239483 0.3253922 0.3398750
                 22204
                           22205
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                                                                              22210
## Cluster 1 0.4661154 0.4453196 0.4567241 0.4518554 0.4935769 0.5659098 0.7323103
## Cluster 2 0.2761525 0.2840880 0.2712727 0.2674692 0.2886804 0.3451730 0.3748416
## Cluster 3 0.5197617 0.5211986 0.5159702 0.5620270 0.5799461 0.6459745 0.7011603
## Cluster 4 0.3938700 0.4075740 0.3859422 0.3595199 0.4389350 0.5729242 0.6703032
## Cluster 5 0.3384397 0.3179483 0.3154828 0.3142069 0.3418750 0.3620086 0.4036034
                           22212
##
                 22211
                                     22213
                                               22214
                                                         22215
                                                                    22216
                                                                              22217
## Cluster 1 0.8622507 0.9164204 0.9585915 0.9920570 1.0264231 0.9998767 0.9373621
## Cluster 2 0.3955455 0.5939179 0.7683284 0.9563695 1.1457742 1.0888152 1.0390440
## Cluster 3 0.7102851 0.7865589 0.8117163 0.8686922 0.9228128 0.9050156 0.9210709
## Cluster 4 0.7322780 0.7695090 0.7453213 0.7259386 0.7436498 0.7442491 0.7221625
## Cluster 5 0.5084224 0.5065905 0.5520043 0.6216293 0.7223103 0.7230690 0.7331595
##
                 22218
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                                                                    22223
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```

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## Cluster 1 0.8789390 0.8588714 0.7629271 0.6506857 0.5521724 0.4706804 0.3540398
## Cluster 2 1.0196422 1.0554692 0.9146774 0.8419238 0.7378358 0.6022493 0.4224194
## Cluster 3 0.8950184 0.8633901 0.8331631 0.8084043 0.7475447 0.6596411 0.5586227
## Cluster 4 0.6985812 0.6749314 0.6301697 0.5318520 0.5106462 0.4520144 0.3458845
## Cluster 5 0.7518448 0.7804397 0.8268578 0.7436250 0.7229397 0.7355259 0.6719828
                 22225
                           22226
                                               22228
                                                          22229
##
                                     22227
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## Cluster 1 0.2713952 0.2041857 0.1892653 0.1622042 0.1528820 0.1531499 0.1514934
## Cluster 2 0.3029560 0.2214780 0.1910147 0.1675367 0.1519765 0.1430733 0.1456979
## Cluster 3 0.4498071 0.3392979 0.2939404 0.2510043 0.2185348 0.2027816 0.1881220
## Cluster 4 0.2825776 0.2400758 0.2338881 0.2155993 0.2130433 0.2163574 0.2088267
  Cluster 5 0.6297500 0.5181078 0.4210776 0.3606034 0.3173836 0.2713147 0.2676853
                           22233
                                     22234
                                               22235
                 22232
                                                          22236
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                                                                              22238
## Cluster 1 0.1475889 0.1477812 0.1489801 0.1717228 0.1672215 0.1890385 0.2598833
## Cluster 2 0.1422317 0.1351085 0.1508446 0.1563167 0.1677185 0.2481202 0.3085748
## Cluster 3 0.1929404 0.1795716 0.1918922 0.1999816 0.2127007 0.2318780 0.2767064
## Cluster 4 0.2108520 0.2359422 0.2541769 0.2836859 0.3202599 0.4561733 0.6745162
## Cluster 5 0.2565216 0.2327414 0.2408405 0.2260129 0.2405517 0.2499828 0.3130517
##
                 22239
                           22240
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                                                          22243
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                                                                              22245
## Cluster 1 0.4009377 0.5967958 0.5953395 0.5489934 0.4960902 0.5123382 0.4664324
## Cluster 2 0.4515161 0.4983109 0.4980880 0.3581730 0.2857595 0.2476979 0.2416921
## Cluster 3 0.3561844 0.4516922 0.4805929 0.4654184 0.4548936 0.4413745 0.4323589
## Cluster 4 0.7826931 0.8137112 0.7379206 0.6128267 0.5334729 0.4535704 0.3847112
## Cluster 5 0.3989569 0.4824871 0.4757931 0.4386853 0.3627457 0.3065172 0.3417457
                 22246
                           22247
                                     22248
                                               22249
                                                          22250
                                                                    22251
## Cluster 1 0.4623103 0.4157095 0.4559695 0.4572825 0.4654615 0.4516180 0.4149271
## Cluster 2 0.2367302 0.2335337 0.2125367 0.2129560 0.2220205 0.2500850 0.2218240
## Cluster 3 0.4611291 0.5035177 0.4718879 0.4756156 0.5213674 0.5481348 0.5281546
## Cluster 4 0.3568375 0.3234549 0.3500108 0.3650072 0.3575054 0.4052130 0.3802816
## Cluster 5 0.3135431 0.3043966 0.2882500 0.3274397 0.3227155 0.3443319 0.2864957
##
                 22253
                           22254
                                     22255
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                                                          22257
                                                                    22258
                                                                              22259
## Cluster 1 0.4121578 0.4099615 0.4101592 0.5021446 0.5655292 0.6935782 0.8259814
## Cluster 2 0.2298094 0.2438886 0.2329208 0.2607449 0.3180205 0.3889296 0.4296950
## Cluster 3 0.5293305 0.4795433 0.5464879 0.5695277 0.6011972 0.6878823 0.7281305
## Cluster 4 0.3801769 0.3868556 0.4082852 0.4227040 0.5664513 0.6499350 0.7089170
  Cluster 5 0.2678103 0.2809052 0.3077069 0.3669310 0.3661767 0.3584655 0.3801897
                                     22262
                                               22263
                 22260
                           22261
                                                          22264
                                                                    22265
                                                                              22266
## Cluster 1 0.9321340 0.9701034 0.9949708 1.0403077 0.9877109 0.9614775 0.8672095
## Cluster 2 0.5225132 0.7160938 0.8961114 1.0623109 1.0946657 1.0910029 1.1252287
## Cluster 3 0.7771064 0.7946837 0.8435915 0.9704355 0.9609305 0.9225858 0.9019787
## Cluster 4 0.7505668 0.7691264 0.7646895 0.7630469 0.7898845 0.7391300 0.6580722
## Cluster 5 0.4029698 0.5018405 0.6561509 0.7334138 0.6801940 0.7336681 0.7432284
                 22267
                           22268
                                     22269
                                               22270
                                                          22271
                                                                              22273
                                                                    22272
## Cluster 1 0.8212865 0.7523196 0.6816804 0.5734178 0.4995690 0.4002719 0.2608568
## Cluster 2 1.0562903 0.9347331 0.9059619 0.7878915 0.6429853 0.4621320 0.3142991
## Cluster 3 0.8852922 0.8451106 0.8040128 0.7168383 0.6473801 0.5359844 0.4152355
## Cluster 4 0.6627617 0.6131805 0.5716282 0.4983177 0.3735126 0.3407076 0.2729892
## Cluster 5 0.8151897 0.7880819 0.7443707 0.7950560 0.7228362 0.6991164 0.5596078
                           22275
                                     22276
##
                 22274
                                               22277
                                                          22278
                                                                    22279
                                                                              22280
## Cluster 1 0.2037414 0.1766499 0.1639204 0.1644695 0.1551724 0.1490743 0.1472639
## Cluster 2 0.2478622 0.2035924 0.1790147 0.1658270 0.1505220 0.1476334 0.1467449
## Cluster 3 0.3319773 0.2922794 0.2342738 0.2222525 0.2014426 0.2069844 0.1962950
## Cluster 4 0.2485921 0.2356534 0.2179314 0.2090542 0.2149531 0.2261625 0.1975090
## Cluster 5 0.5450948 0.4681897 0.4100431 0.3513233 0.2978362 0.2960560 0.2730259
##
                 22281
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                                               22284
                                                          22285
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                                                                              22287
```

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## Cluster 1 0.1465146 0.1513820 0.1650385 0.1649615 0.2012095 0.2749350 0.4380862
## Cluster 2 0.1466158 0.1597302 0.1602581 0.1943930 0.2690968 0.3398622 0.4466628
## Cluster 3 0.1894255 0.1988426 0.1986496 0.2101078 0.2354057 0.2777801 0.3380766
## Cluster 4 0.2288773 0.2466751 0.2847220 0.3385054 0.4403574 0.6132274 0.7562816
## Cluster 5 0.2563836 0.2229224 0.2449957 0.2249397 0.2573190 0.2990819 0.3848103
                 22288
                           22289
                                     22290
                                               22291
                                                         22292
                                                                    22293
## Cluster 1 0.6043607 0.5921472 0.5021499 0.4969642 0.4639536 0.4899284 0.4614589
## Cluster 2 0.5454399 0.5265455 0.3711701 0.3046569 0.2548710 0.2338446 0.2359501
## Cluster 3 0.4435518 0.4993660 0.4537035 0.4654284 0.4404922 0.4406057 0.4342298
## Cluster 4 0.8699278 0.7258087 0.5563574 0.4346462 0.3736751 0.4112130 0.3964440
  Cluster 5 0.4438621 0.4212069 0.4613664 0.3457284 0.2995517 0.2717802 0.3101509
                 22295
                           22296
                                     22297
                                               22298
                                                         22299
                                                                    22300
                                                                              22301
## Cluster 1 0.4477029 0.4373793 0.4226286 0.4600358 0.4315650 0.4228488 0.4144960
## Cluster 2 0.2110587 0.2228182 0.2234340 0.2253079 0.2733079 0.2943636 0.2754311
## Cluster 3 0.4599135 0.4191816 0.4594624 0.4803858 0.4944326 0.5043872 0.4915319
## Cluster 4 0.4206823 0.3734585 0.3877726 0.4116173 0.4176823 0.3976643 0.3994296
## Cluster 5 0.2704440 0.2963017 0.3231121 0.3681595 0.3271466 0.2978922 0.2741509
##
                 22302
                           22303
                                     22304
                                               22305
                                                         22306
                                                                    22307
                                                                              22308
## Cluster 1 0.4053554 0.4545133 0.4487878 0.5660703 0.6671578 0.8004430 0.9362321
## Cluster 2 0.2585513 0.2454428 0.2852375 0.2981818 0.3729883 0.4307155 0.5125836
## Cluster 3 0.4777929 0.5159291 0.5765376 0.6689716 0.7288837 0.7623674 0.7856596
## Cluster 4 0.3922383 0.4316895 0.4786570 0.5692599 0.6341083 0.7332238 0.7635921
## Cluster 5 0.3320172 0.2941638 0.3027543 0.3349138 0.3660517 0.3946250 0.4808879
                 22309
                           22310
                                     22311
                                               22312
                                                         22313
## Cluster 1 0.9639403 0.9163660 1.0041724 0.9419456 0.9227878 0.8956910 0.8538926
## Cluster 2 0.6815308 0.9064721 1.0561320 1.0224897 0.9930909 0.9938358 1.0087273
## Cluster 3 0.7666284 0.8354270 0.8901177 0.8590213 0.8604312 0.9110326 0.8940879
## Cluster 4 0.7601841 0.8167112 0.7550614 0.7513827 0.7288159 0.6936173 0.6403718
## Cluster 5 0.6049440 0.6537198 0.6924440 0.6958621 0.6533491 0.7234440 0.7491767
                 22316
                           22317
                                     22318
                                               22319
                                                         22320
                                                                    22321
                                                                              22322
## Cluster 1 0.7641167 0.6792042 0.5778103 0.4900000 0.3902507 0.2826008 0.2200411
## Cluster 2 0.9355601 0.8269795 0.7060088 0.5889765 0.4450587 0.3286393 0.2328798
## Cluster 3 0.8513986 0.8113745 0.7321518 0.6720113 0.5643844 0.4504411 0.3661844
## Cluster 4 0.6242635 0.5552527 0.4566787 0.4034874 0.3379350 0.2664043 0.2466354
## Cluster 5 0.7545216 0.7344440 0.7211250 0.7630948 0.6708491 0.5299784 0.4416595
                                     22325
                           22324
                                               22326
                 22323
                                                         22327
                                                                    22328
                                                                              22329
## Cluster 1 0.1945796 0.1727334 0.1686724 0.1555836 0.1488846 0.1465318 0.1522639
## Cluster 2 0.2016745 0.1828358 0.1696804 0.1570323 0.1482229 0.1398270 0.1446510
## Cluster 3 0.2984823 0.2539291 0.2277489 0.2134553 0.2031064 0.1939830 0.1894298
## Cluster 4 0.2381083 0.2219819 0.2161552 0.2185632 0.2220650 0.2056209 0.2410036
## Cluster 5 0.4102931 0.3260474 0.3122241 0.2647716 0.2390733 0.2576552 0.2476853
                 22330
                           22331
                                     22332
                                               22333
                                                         22334
                                                                    22335
                                                                              22336
## Cluster 1 0.1568979 0.1614284 0.1726220 0.1830159 0.2406844 0.4119881 0.5867706
## Cluster 2 0.1576979 0.1662815 0.1607537 0.2485337 0.2851349 0.4306158 0.5710674
## Cluster 3 0.1972794 0.2060355 0.2111348 0.2285475 0.2740199 0.3469759 0.4230624
## Cluster 4 0.2530939 0.2584765 0.3170722 0.4337112 0.5966390 0.7719097 0.8324946
## Cluster 5 0.2447500 0.2624914 0.2506078 0.2427759 0.2866164 0.3483922 0.4371552
                           22338
                                     22339
##
                 22337
                                               22340
                                                         22341
                                                                    22342
                                                                              22343
## Cluster 1 0.5605544 0.5563050 0.5404138 0.5394469 0.5006247 0.4836950 0.4884125
## Cluster 2 0.5623431 0.4221525 0.3137947 0.2774751 0.2832610 0.2535132 0.2650323
## Cluster 3 0.4703078 0.4736610 0.4516270 0.4792156 0.4764809 0.4794723 0.4927475
## Cluster 4 0.6767978 0.5419567 0.4393466 0.4289531 0.4365307 0.3793610 0.4330505
## Cluster 5 0.4711034 0.4201207 0.3256121 0.3337112 0.3501940 0.3369741 0.3446552
##
                 22344
                           22345
                                     22346
                                               22347
                                                         22348
                                                                    22349
                                                                              22350
```

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## Cluster 1 0.4624881 0.4621180 0.4913329 0.4987427 0.4508488 0.4573899 0.4847679
## Cluster 2 0.2285279 0.2802551 0.2795836 0.2920704 0.2757155 0.2741701 0.2805073
## Cluster 3 0.4861035 0.4932879 0.5513262 0.5675702 0.5234270 0.5126695 0.5190879
## Cluster 4 0.4103430 0.3831805 0.4317509 0.4410686 0.4202238 0.4404621 0.4043827
## Cluster 5 0.3106422 0.3171509 0.3367586 0.3603103 0.3498276 0.3556983 0.3717198
                                     22353
                                                          22355
                 22351
                           22352
                                               22354
                                                                    22356
                                                                              22357
## Cluster 1 0.5204682 0.5753355 0.6250106 0.7214204 0.8992958 1.0253952 1.0557732
## Cluster 2 0.2940587 0.3238358 0.3389472 0.4505689 0.5134370 0.6946891 0.8465220
## Cluster 3 0.5434993 0.5667007 0.6555064 0.7380043 0.7796028 0.8417050 0.8665943
## Cluster 4 0.4222852 0.4649097 0.5197834 0.6439892 0.6838989 0.6690505 0.6697148
  Cluster 5 0.3759181 0.4126638 0.4390000 0.4290948 0.4418922 0.5583060 0.6732112
                 22358
                           22359
                                     22360
                                               22361
                                                          22362
                                                                    22363
                                                                              22364
## Cluster 1 0.9737944 0.9783554 0.9328899 0.8995027 0.8739973 0.8262042 0.7320517
## Cluster 2 0.9454604 0.9935689 1.0115660 0.9339648 0.8695425 0.8336833 0.7664047
## Cluster 3 0.8956752 0.9149631 0.9451560 0.8956255 0.8372823 0.8338397 0.8022355
## Cluster 4 0.6929783 0.7246968 0.6973285 0.6609458 0.5887365 0.5595415 0.5354874
## Cluster 5 0.7112672 0.7543017 0.6929397 0.6923233 0.6588319 0.7413017 0.6809914
##
                 22365
                           22366
                                     22367
                                               22368
                                                          22369
                                                                    22370
                                                                              22371
## Cluster 1 0.6781737 0.5861512 0.5312639 0.4502361 0.3663064 0.2901485 0.2332732
## Cluster 2 0.7426921 0.7034340 0.6370000 0.5816891 0.4268563 0.3347977 0.2625806
## Cluster 3 0.7795234 0.7167915 0.6795404 0.6181177 0.5244879 0.4170965 0.3537262
## Cluster 4 0.5074838 0.4842708 0.4682022 0.3835921 0.3084549 0.2959639 0.2599458
## Cluster 5 0.6880000 0.6998621 0.6739741 0.6763922 0.6575517 0.6199957 0.4669828
                 22372
                           22373
                                     22374
                                               22375
                                                          22376
                                                                    22377
## Cluster 1 0.2102321 0.1839111 0.1759350 0.1709443 0.1634801 0.1574695 0.1701844
## Cluster 2 0.2186481 0.2005044 0.1611994 0.1624282 0.1529413 0.1485806 0.1606217
## Cluster 3 0.3128794 0.2633291 0.2389702 0.2227291 0.2212667 0.2031135 0.1997191
## Cluster 4 0.2472924 0.2428231 0.2246895 0.2131083 0.2215307 0.2605523 0.2600325
## Cluster 5 0.3663233 0.3193147 0.2973319 0.2793922 0.2755216 0.2883578 0.2519397
                 22379
                           22380
                                     22381
                                               22382
                                                          22383
                                                                    22384
                                                                              22385
## Cluster 1 0.1596592 0.1608316 0.1812308 0.1980729 0.2360703 0.2937082 0.3653501
## Cluster 2 0.1655015 0.1600733 0.1909443 0.1950088 0.2276950 0.2546070 0.3324956
## Cluster 3 0.2078411 0.2164695 0.2235362 0.2137390 0.2385092 0.2553064 0.3267291
## Cluster 4 0.2579097 0.3020758 0.3220036 0.3747112 0.4188917 0.5167762 0.5221661
## Cluster 5 0.2731336 0.2397802 0.2489397 0.2520000 0.2845474 0.3190560 0.3139784
                 22386
                                     22388
                                               22389
                                                          22390
                           22387
                                                                    22391
                                                                              22392
## Cluster 1 0.4735809 0.5356605 0.6504841 0.6769708 0.6810663 0.7291923 0.6755756
## Cluster 2 0.4332434 0.4346862 0.4278240 0.5103372 0.5219883 0.5031349 0.4530850
## Cluster 3 0.3860539 0.4258071 0.4956057 0.5859589 0.6217844 0.6248199 0.6569660
## Cluster 4 0.5928628 0.5951516 0.6067184 0.6058087 0.6072058 0.6272383 0.5671155
## Cluster 5 0.4108491 0.3572586 0.4410690 0.4496293 0.4489526 0.5006207 0.5019353
                 22393
                           22394
                                     22395
                                               22396
                                                          22397
                                                                    22398
                                                                              22399
## Cluster 1 0.6792467 0.6510557 0.6802639 0.6212692 0.5830199 0.5814496 0.5652109
## Cluster 2 0.4500235 0.4532141 0.4272757 0.4713284 0.3894809 0.3713167 0.4374663
## Cluster 3 0.6587858 0.6900383 0.7121532 0.7290667 0.6972028 0.6314355 0.6323050
## Cluster 4 0.5519567 0.5055993 0.4943610 0.5473141 0.4601372 0.4797726 0.4851877
## Cluster 5 0.4991207 0.5175302 0.4743578 0.4854526 0.4359612 0.4296164 0.4185302
                                     22402
##
                 22400
                           22401
                                               22403
                                                          22404
                                                                    22405
                                                                              22406
## Cluster 1 0.5646008 0.6010915 0.6848289 0.8143833 0.9661592 1.0064775 1.0386459
## Cluster 2 0.4544575 0.4700968 0.5507449 0.6080821 0.6400909 0.7694223 0.9178387
## Cluster 3 0.6752298 0.6941475 0.7158908 0.7404511 0.8043106 0.8959121 0.9597177
## Cluster 4 0.4763610 0.5739639 0.6743249 0.6998809 0.6786715 0.6913538 0.7511336
## Cluster 5 0.4572026 0.4888966 0.5241552 0.5516552 0.6062026 0.5994483 0.7458147
##
                 22407
                           22408
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                                               22410
                                                          22411
                                                                    22412
                                                                              22413
```

```
## Cluster 1 1.0031645 0.9625358 0.8708342 0.7868382 0.7325345 0.6985106 0.6761751
## Cluster 2 0.9583372 0.9219941 0.9119531 0.8256276 0.7997009 0.7438944 0.6946833
## Cluster 3 0.9271560 0.9133532 0.8825362 0.8406043 0.7832610 0.7779830 0.7393844
## Cluster 4 0.7954260 0.7102744 0.6296534 0.5917798 0.5519242 0.5368303 0.5052383
## Cluster 5 0.7962284 0.8394828 0.7760000 0.7173793 0.7374353 0.7014310 0.7117888
                                                          22418
##
                 22414
                           22415
                                     22416
                                               22417
                                                                    22419
                                                                              22420
## Cluster 1 0.5967878 0.5123050 0.4573382 0.3684920 0.2970477 0.2473607 0.2226631
## Cluster 2 0.6454692 0.5709677 0.4945660 0.4275543 0.3424545 0.2846833 0.2313460
## Cluster 3 0.6885404 0.6595163 0.6002511 0.4941589 0.4200908 0.3573759 0.3242468
## Cluster 4 0.4830578 0.4213610 0.3740217 0.3497545 0.3075884 0.2674946 0.2503466
  Cluster 5 0.7034095 0.6966724 0.6646422 0.5488147 0.5275776 0.4481595 0.3980733
                           22422
                                     22423
                                               22424
                                                          22425
                 22421
                                                                    22426
                                                                              22427
## Cluster 1 0.1967851 0.1874920 0.1747520 0.1693660 0.1730902 0.1683170 0.1680451
## Cluster 2 0.1953196 0.1905220 0.1810704 0.1694868 0.1609560 0.1497009 0.1563402
## Cluster 3 0.2887660 0.2498454 0.2370950 0.2323447 0.2072809 0.2077972 0.2048738
## Cluster 4 0.2332347 0.2438195 0.2424043 0.2274657 0.2630469 0.2946282 0.2898809
## Cluster 5 0.3534741 0.3319267 0.3235948 0.2733405 0.2733319 0.2611595 0.2680819
##
                 22428
                           22429
                                     22430
                                               22431
                                                          22432
                                                                    22433
                                                                              22434
## Cluster 1 0.1668939 0.1784443 0.1839483 0.2199536 0.2624881 0.3407334 0.4429735
## Cluster 2 0.1636305 0.1850792 0.1854780 0.1986716 0.2217067 0.2467654 0.2965660
## Cluster 3 0.2145858 0.2300340 0.2275546 0.2399674 0.2508794 0.2965872 0.3443504
## Cluster 4 0.2822383 0.2931625 0.3031264 0.3676245 0.4185235 0.5014729 0.5451552
## Cluster 5 0.2542371 0.2601810 0.2682845 0.3052845 0.3050819 0.2817802 0.3447241
                 22435
                           22436
                                     22437
                                               22438
                                                          22439
                                                                    22440
## Cluster 1 0.5663806 0.6445477 0.7271366 0.7605597 0.7328342 0.7757905 0.7985345
## Cluster 2 0.3954839 0.4102610 0.4833138 0.5090850 0.4807889 0.5071613 0.5525015
## Cluster 3 0.4363277 0.5153234 0.6281206 0.6987121 0.7316071 0.6927532 0.7603943
## Cluster 4 0.6231877 0.7087581 0.6247798 0.6658231 0.6525451 0.7107437 0.6727978
## Cluster 5 0.4030862 0.3856078 0.4315172 0.4691336 0.4809698 0.4860733 0.5531810
##
                 22442
                           22443
                                     22444
                                               22445
                                                          22446
                                                                    22447
                                                                              22448
## Cluster 1 0.8274562 0.7840716 0.7206751 0.7001618 0.6676950 0.6361963 0.6204615
## Cluster 2 0.6165367 0.5578446 0.5356246 0.4865748 0.4100293 0.3985191 0.3961701
## Cluster 3 0.7913191 0.8444950 0.8338270 0.7892511 0.7593362 0.7312383 0.6854695
## Cluster 4 0.7342780 0.6334801 0.6139386 0.6444657 0.5315812 0.4788736 0.4753574
  Cluster 5 0.4643534 0.5633233 0.5133879 0.4534569 0.4793362 0.3748966 0.4130129
                                               22452
                 22449
                           22450
                                     22451
                                                          22453
                                                                    22454
                                                                              22455
## Cluster 1 0.6186777 0.6453554 0.7213793 0.7757202 0.8613037 0.9195199 0.9123077
## Cluster 2 0.4190821 0.4854135 0.5301144 0.6664252 0.7348182 0.8577185 0.9157243
## Cluster 3 0.6872043 0.6744695 0.6977390 0.7212936 0.7967262 0.8651702 0.9244723
## Cluster 4 0.5890975 0.5847220 0.6024152 0.6888736 0.7500578 0.7297401 0.7836679
## Cluster 5 0.4400948 0.4341422 0.4426724 0.4797155 0.5038707 0.6403879 0.6982672
                 22456
                           22457
                                     22458
                                               22459
                                                          22460
                                                                    22461
                                                                              22462
## Cluster 1 0.8637056 0.8267666 0.7543687 0.7371737 0.6826698 0.6226512 0.5729072
## Cluster 2 0.9296276 0.8747889 0.8580029 0.7795924 0.7047243 0.6905103 0.5985044
## Cluster 3 0.9055830 0.8631362 0.8147674 0.8220383 0.7719660 0.7306014 0.6788865
## Cluster 4 0.6461986 0.6125271 0.5894043 0.6162419 0.5400650 0.5078845 0.4743899
## Cluster 5 0.7590302 0.7405129 0.7157198 0.6928534 0.6834009 0.7005302 0.6748233
                           22464
##
                 22463
                                     22465
                                               22466
                                                          22467
                                                                    22468
                                                                              22469
## Cluster 1 0.5001552 0.4048979 0.3221552 0.2687679 0.2360729 0.2140637 0.1874443
## Cluster 2 0.5558915 0.4518915 0.3622493 0.2965484 0.2538240 0.1935748 0.1741173
## Cluster 3 0.6312908 0.5328638 0.4428695 0.3796553 0.3331362 0.3080624 0.2731504
## Cluster 4 0.4101408 0.3561047 0.3194982 0.2983141 0.2676751 0.2419603 0.2383755
## Cluster 5 0.7139526 0.6842026 0.6134095 0.5536207 0.5104095 0.4234741 0.3832845
##
                 22470
                           22471
                                     22472
                                               22473
                                                          22474
                                                                    22475
                                                                              22476
```

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## Cluster 1 0.1868714 0.1700531 0.1667812 0.1684695 0.1638408 0.1633369 0.1685027
## Cluster 2 0.1675103 0.1763314 0.1648592 0.1514282 0.1521789 0.1519560 0.1619736
## Cluster 3 0.2568993 0.2328823 0.2203504 0.2216397 0.2144184 0.2041390 0.2026780
## Cluster 4 0.2302960 0.2219422 0.2229856 0.2466823 0.2583502 0.2633502 0.2680144
## Cluster 5 0.3699612 0.2982586 0.2965345 0.3057586 0.2859957 0.2931422 0.2974353
                                               22480
                                                         22481
                                                                    22482
                 22477
                           22478
                                     22479
## Cluster 1 0.1729987 0.1978501 0.2048276 0.2289894 0.2769589 0.3715584 0.4776101
## Cluster 2 0.1766686 0.1710352 0.1925484 0.2166510 0.2452493 0.3008035 0.3466510
## Cluster 3 0.2089433 0.2228610 0.2509518 0.2478113 0.2741149 0.3095248 0.3640284
## Cluster 4 0.2981264 0.3306462 0.3539711 0.4119819 0.4174585 0.4685993 0.6448520
  Cluster 5 0.2985560 0.3237974 0.3599698 0.3383621 0.3357069 0.3389353 0.3978664
                           22485
                                     22486
                                               22487
                                                         22488
                 22484
                                                                    22489
                                                                              22490
## Cluster 1 0.5554960 0.7001645 0.7331472 0.7277639 0.7241379 0.7054377 0.7007095
## Cluster 2 0.3904927 0.4423314 0.4843402 0.4428123 0.5142258 0.4894985 0.5736217
## Cluster 3 0.4268553 0.5058270 0.5446809 0.6259702 0.6872099 0.7523617 0.7526411
## Cluster 4 0.5779134 0.5278231 0.5623574 0.6545451 0.6238448 0.5841191 0.5980903
## Cluster 5 0.3844310 0.5165560 0.4402629 0.4813793 0.5237241 0.4953750 0.5302284
##
                 22491
                           22492
                                     22493
                                               22494
                                                         22495
                                                                    22496
                                                                              22497
## Cluster 1 0.7532188 0.7093859 0.7104111 0.6494125 0.6540133 0.5778342 0.6666379
## Cluster 2 0.5140850 0.4696716 0.4438446 0.4761496 0.3973930 0.4424721 0.4564282
## Cluster 3 0.7784043 0.7026823 0.6969390 0.6868014 0.7392723 0.7354567 0.7434553
## Cluster 4 0.7164368 0.6548448 0.6067690 0.5790542 0.5141733 0.5589350 0.6436534
## Cluster 5 0.5011466 0.5339871 0.4417845 0.4733750 0.4306810 0.4921810 0.5680000
                 22498
                           22499
                                     22500
                                               22501
                                                         22502
                                                                    22503
## Cluster 1 0.7634098 0.8897149 0.9909775 1.0764523 1.0135531 0.9989854 0.9259655
## Cluster 2 0.5434751 0.6403988 0.7281613 0.8300587 0.8824018 0.9672346 0.9398416
## Cluster 3 0.7762496 0.8249617 0.8442184 0.9321816 0.9594652 0.9428681 0.9115177
## Cluster 4 0.7309819 0.7148051 0.7436931 0.8308664 0.7425126 0.7964585 0.7242455
## Cluster 5 0.6155259 0.5788448 0.5928017 0.6326034 0.7451164 0.7773017 0.7789095
                 22505
                           22506
                                     22507
                                               22508
                                                         22509
                                                                    22510
                                                                              22511
## Cluster 1 0.9332003 0.8909403 0.8194138 0.7146684 0.6496034 0.5883475 0.4902056
## Cluster 2 0.9403138 0.9302522 0.9259883 0.8065601 0.7476716 0.6732757 0.5828886
## Cluster 3 0.8636979 0.8602014 0.8498525 0.7933745 0.7714965 0.7165631 0.6608128
## Cluster 4 0.7202996 0.6866318 0.6647040 0.5976715 0.5239603 0.4528520 0.4194874
## Cluster 5 0.7487198 0.7607328 0.7865560 0.7692931 0.7321638 0.7167112 0.7761897
                           22513
                                     22514
                                               22515
                                                         22516
                 22512
                                                                    22517
                                                                              22518
## Cluster 1 0.4241724 0.3083050 0.2538541 0.1995836 0.1806844 0.1728926 0.1655650
## Cluster 2 0.4370645 0.3183548 0.2442933 0.1946158 0.1679765 0.1615777 0.1420704
## Cluster 3 0.5553546 0.4600213 0.3743262 0.3037858 0.2573504 0.2398553 0.2258610
## Cluster 4 0.3333357 0.3114368 0.2705812 0.2318628 0.2330866 0.2255415 0.2227473
## Cluster 5 0.7241940 0.5613836 0.5049138 0.4136379 0.3491853 0.3062672 0.2625517
                 22519
                           22520
                                     22521
                                               22522
                                                         22523
                                                                    22524
                                                                              22525
## Cluster 1 0.1617480 0.1602958 0.1572944 0.1650464 0.1618342 0.1809615 0.1911618
## Cluster 2 0.1443812 0.1357859 0.1347918 0.1446422 0.1534282 0.1900293 0.2542317
## Cluster 3 0.2142298 0.1983887 0.1957007 0.1994922 0.1984922 0.2083745 0.2386227
## Cluster 4 0.2025632 0.2143213 0.2416173 0.2320722 0.2693827 0.3110650 0.3752924
## Cluster 5 0.2548319 0.2614828 0.2307241 0.2171466 0.2458448 0.2250474 0.2269181
                                               22529
                                                         22530
##
                 22526
                           22527
                                     22528
                                                                    22531
                                                                              22532
## Cluster 1 0.2323156 0.3055411 0.3840915 0.4571830 0.5226552 0.5271777 0.5781220
## Cluster 2 0.2878710 0.3802170 0.3922199 0.4453783 0.4075806 0.3401173 0.2829003
## Cluster 3 0.2618979 0.3028610 0.3325674 0.3780397 0.4065206 0.4359390 0.4921730
## Cluster 4 0.5424440 0.5691697 0.6452527 0.6592708 0.5978809 0.5578556 0.5426245
## Cluster 5 0.2537759 0.2905690 0.3444784 0.4705905 0.4019914 0.3863103 0.3912112
##
                 22533
                           22534
                                     22535
                                               22536
                                                         22537
                                                                    22538
                                                                              22539
```

```
## Cluster 1 0.6063064 0.6193077 0.5567321 0.5446870 0.5619297 0.5741897 0.5730239
## Cluster 2 0.2899912 0.2929560 0.3036979 0.3105836 0.2985455 0.3278387 0.3374252
## Cluster 3 0.5008128 0.5118057 0.5158326 0.5573021 0.5885702 0.6387943 0.7007362
## Cluster 4 0.5459422 0.4810144 0.4584657 0.4496318 0.4288123 0.4484296 0.4718628
## Cluster 5 0.4162155 0.3462155 0.3552802 0.3870647 0.3469095 0.3870129 0.4014095
                           22541
                                     22542
                                               22543
                                                          22544
##
                 22540
                                                                    22545
                                                                              22546
## Cluster 1 0.5473952 0.5583554 0.5115119 0.5232520 0.5415279 0.5974788 0.7144310
## Cluster 2 0.3330235 0.3157331 0.3112229 0.3623783 0.3014076 0.3451906 0.3834721
## Cluster 3 0.6255220 0.6005631 0.6425106 0.5951277 0.6220965 0.7063943 0.7560454
## Cluster 4 0.4301625 0.4212274 0.4365271 0.5123357 0.5335487 0.6027906 0.6447978
  Cluster 5 0.3577586 0.3391422 0.3356164 0.3434397 0.3298750 0.3750733 0.4119440
                 22547
                           22548
                                     22549
                                               22550
                                                          22551
                                                                    22552
                                                                              22553
## Cluster 1 0.8797599 1.0653117 1.0702042 1.0139125 1.0171154 0.9685371 0.9078528
## Cluster 2 0.4432669 0.6141642 0.8207742 0.9688798 1.0075308 1.0767478 0.9990704
## Cluster 3 0.7998539 0.8527872 0.9111248 0.9160709 0.9534085 0.9248482 0.8795546
## Cluster 4 0.7189097 0.8101444 0.8228051 0.7212563 0.7476787 0.7654007 0.7291191
## Cluster 5 0.4870172 0.5094655 0.6231379 0.7416897 0.8308621 0.7600560 0.7406940
##
                 22554
                           22555
                                     22556
                                               22557
                                                          22558
                                                                    22559
                                                                              22560
## Cluster 1 0.8560451 0.8208966 0.7411260 0.6888302 0.5757851 0.5022546 0.3972334
## Cluster 2 0.9165249 1.0030674 0.8918270 0.8246862 0.7093343 0.5790968 0.4582845
## Cluster 3 0.8534879 0.8597560 0.8598383 0.8356170 0.7343688 0.6679319 0.5951078
## Cluster 4 0.6321300 0.6332527 0.5835487 0.5296968 0.5022635 0.4610289 0.3689386
## Cluster 5 0.7684224 0.7961121 0.7077069 0.6712672 0.7005388 0.7302414 0.7037371
                 22561
                           22562
                                     22563
                                               22564
                                                          22565
                                                                    22566
## Cluster 1 0.3107997 0.2440849 0.2124589 0.1849218 0.1693740 0.1609668 0.1602374
## Cluster 2 0.3579971 0.2772229 0.2126950 0.1967566 0.1760645 0.1553402 0.1602610
## Cluster 3 0.5053915 0.4103291 0.3316014 0.2835234 0.2452908 0.2207773 0.2120468
## Cluster 4 0.2875848 0.2523285 0.2342780 0.2253718 0.2135235 0.2211047 0.2269278
## Cluster 5 0.6058190 0.4587629 0.3950647 0.3511250 0.3095733 0.2739052 0.2457069
##
                 22568
                           22569
                                     22570
                                               22571
                                                          22572
                                                                    22573
                                                                              22574
## Cluster 1 0.1561698 0.1613926 0.1566618 0.1639072 0.1828369 0.2111764 0.2363170
## Cluster 2 0.1440205 0.1470235 0.1526070 0.1713695 0.1831789 0.2355630 0.3200997
## Cluster 3 0.2076227 0.1938440 0.2079745 0.2029248 0.2036809 0.2466780 0.2791560
## Cluster 4 0.2283032 0.2404549 0.2278448 0.2602671 0.3105199 0.3902130 0.5434838
  Cluster 5 0.2469095 0.2503103 0.2221897 0.2300560 0.2405603 0.2440948 0.2606078
                                     22577
                                               22578
                 22575
                           22576
                                                          22579
                                                                    22580
                                                                              22581
## Cluster 1 0.3391751 0.4462772 0.4775981 0.5040650 0.5286499 0.5390610 0.5221910
## Cluster 2 0.3932698 0.4018534 0.4342991 0.3801232 0.3008534 0.3060821 0.2767742
## Cluster 3 0.2967674 0.3371901 0.3852468 0.3916000 0.4475121 0.4334979 0.4842383
## Cluster 4 0.5945199 0.6315668 0.6358556 0.5491986 0.5421986 0.4794765 0.5010325
## Cluster 5 0.3303276 0.3949655 0.4033922 0.4100474 0.3593362 0.3444871 0.3209181
                 22582
                           22583
                                     22584
                                               22585
                                                          22586
                                                                    22587
                                                                              22588
## Cluster 1 0.5211472 0.5404496 0.4810027 0.5160981 0.5662772 0.5862109 0.5131459
## Cluster 2 0.2973695 0.2714487 0.2611848 0.2663959 0.2917009 0.3325748 0.3021818
## Cluster 3 0.5344482 0.5253447 0.5881617 0.5898000 0.6026397 0.6756028 0.6443461
## Cluster 4 0.4129928 0.4107545 0.4490505 0.4866137 0.4567834 0.4624838 0.4244116
## Cluster 5 0.3810302 0.3893060 0.3746121 0.3741853 0.4129310 0.4164957 0.4136983
                           22590
                                     22591
                                                          22593
##
                 22589
                                               22592
                                                                    22594
                                                                              22595
## Cluster 1 0.5088475 0.5046141 0.5300915 0.5581074 0.6278780 0.7118966 0.8523196
## Cluster 2 0.3045982 0.3220205 0.2883959 0.3249531 0.3428152 0.4143548 0.4818563
## Cluster 3 0.5863589 0.5913830 0.6183759 0.7006057 0.7361574 0.7717149 0.7802667
## Cluster 4 0.3834910 0.3740072 0.3895451 0.4549386 0.5343032 0.6255740 0.6843394
## Cluster 5 0.3978405 0.3398233 0.3303836 0.3630776 0.4024871 0.4468793 0.4522371
##
                 22596
                           22597
                                     22598
                                               22599
                                                          22600
                                                                    22601
                                                                              22602
```

```
## Cluster 1 0.9503103 1.0221088 1.0330451 1.0368568 0.9496194 0.9482971 0.9140385
## Cluster 2 0.5933783 0.7578387 0.8857155 1.0591935 1.0659384 1.0523812 1.0684721
## Cluster 3 0.8158950 0.8449915 0.8913816 0.9669716 0.9102709 0.8957418 0.8640567
## Cluster 4 0.7498700 0.7455379 0.7627076 0.7505957 0.7549892 0.7047653 0.6614188
## Cluster 5 0.5012716 0.6596379 0.7188147 0.8090345 0.7910647 0.7767586 0.6956250
                 22603
                           22604
                                               22606
                                                          22607
##
                                     22605
                                                                    22608
                                                                              22609
## Cluster 1 0.8664324 0.7657281 0.7111273 0.6119350 0.5128143 0.4241618 0.3099058
## Cluster 2 0.9982141 0.8816334 0.8422141 0.7274282 0.6199238 0.4794516 0.3623079
## Cluster 3 0.8470695 0.8350071 0.7865716 0.7156908 0.6680156 0.5705489 0.4829305
## Cluster 4 0.6370361 0.5743285 0.5295235 0.4714874 0.4254657 0.4093357 0.3108303
  Cluster 5 0.7244224 0.7317026 0.7477241 0.7362716 0.7772845 0.7068879 0.6042888
                           22611
                                     22612
                                               22613
                 22610
                                                          22614
                                                                    22615
                                                                              22616
## Cluster 1 0.2521366 0.2028488 0.1813435 0.1657347 0.1597175 0.1567679 0.1497520
## Cluster 2 0.2652053 0.2201877 0.1853842 0.1733490 0.1601202 0.1581408 0.1377009
## Cluster 3 0.3988312 0.3265433 0.2684908 0.2394511 0.2201730 0.2128440 0.2067319
## Cluster 4 0.2714296 0.2618664 0.2265379 0.2220072 0.2157762 0.2098484 0.2336318
## Cluster 5 0.5144310 0.4298534 0.3659784 0.2938060 0.3028448 0.2753276 0.2645819
##
                 22617
                           22618
                                     22619
                                               22620
                                                          22621
                                                                    22622
                                                                              22623
## Cluster 1 0.1553767 0.1589523 0.1548037 0.1772294 0.1985159 0.2419775 0.3273979
## Cluster 2 0.1443402 0.1498886 0.1915044 0.1968065 0.2736598 0.2726921 0.3673284
## Cluster 3 0.2178170 0.1983021 0.1973730 0.2069560 0.2318624 0.2567574 0.3157560
## Cluster 4 0.2459964 0.2435162 0.2962491 0.3192708 0.4065487 0.5183285 0.5966534
## Cluster 5 0.2421250 0.2269052 0.2192716 0.2293750 0.2421466 0.2634655 0.3389440
                 22624
                           22625
                                     22626
                                               22627
                                                          22628
                                                                    22629
## Cluster 1 0.4390504 0.5047851 0.5694496 0.6172149 0.5432666 0.5568077 0.5416684
## Cluster 2 0.4773460 0.4673460 0.3799150 0.3451848 0.3046070 0.2763666 0.2887771
## Cluster 3 0.3843376 0.4180738 0.4274539 0.4548752 0.4737418 0.5168582 0.5576539
## Cluster 4 0.6547906 0.6917220 0.5712924 0.5185235 0.4871769 0.4109819 0.4251516
## Cluster 5 0.3833276 0.3947500 0.4431121 0.3585948 0.3365690 0.4065129 0.3659267
##
                 22631
                           22632
                                     22633
                                               22634
                                                          22635
                                                                    22636
                                                                              22637
## Cluster 1 0.5354416 0.5206923 0.5302003 0.5586790 0.5568700 0.5167653 0.5124615
## Cluster 2 0.3083988 0.2949120 0.2934282 0.2884868 0.3208416 0.3117478 0.3071848
## Cluster 3 0.5719759 0.5666809 0.5728043 0.5723660 0.6004113 0.5896979 0.5757801
## Cluster 4 0.4304765 0.4803213 0.4144043 0.4718556 0.4959747 0.5200072 0.4811408
## Cluster 5 0.4329741 0.3685345 0.3530000 0.4062328 0.4038879 0.3867586 0.3776940
                                     22640
                                               22641
                                                          22642
                 22638
                           22639
                                                                    22643
                                                                              22644
## Cluster 1 0.5052042 0.4822838 0.4958196 0.5824204 0.6716459 0.8538541 1.0294443
## Cluster 2 0.3002258 0.2677331 0.2662845 0.3324135 0.4088974 0.4696364 0.6119120
## Cluster 3 0.5631319 0.5995716 0.6202979 0.6813773 0.7564426 0.8151617 0.8430709
## Cluster 4 0.4110686 0.4486823 0.5002888 0.5591625 0.5478520 0.7480000 0.8196209
## Cluster 5 0.3355517 0.3308879 0.3540431 0.3776853 0.4380086 0.4580733 0.4937500
                 22645
                           22646
                                     22647
                                               22648
                                                          22649
                                                                    22650
                                                                              22651
## Cluster 1 1.0747493 0.9988687 0.9914403 0.9661353 0.9060703 0.8754151 0.8327347
## Cluster 2 0.7698006 0.8963842 0.9936393 0.9944809 1.0610440 0.9896364 0.9512845
## Cluster 3 0.9481489 0.9274567 0.9100170 0.8569191 0.8292837 0.8575376 0.8645277
## Cluster 4 0.6982383 0.7366787 0.7155993 0.6410866 0.6660903 0.6122671 0.6211805
## Cluster 5 0.6259741 0.6652198 0.7575776 0.7748578 0.7973448 0.7979224 0.7613707
                           22653
                                                          22656
##
                 22652
                                     22654
                                               22655
                                                                    22657
                                                                              22658
## Cluster 1 0.7844589 0.7361764 0.6254443 0.5343289 0.4160464 0.3167334 0.2596286
## Cluster 2 0.8662375 0.7924194 0.7129003 0.6246041 0.4959824 0.3572581 0.2835367
## Cluster 3 0.8109021 0.7534823 0.7161688 0.6822057 0.5674241 0.4894652 0.4086255
## Cluster 4 0.5873466 0.4723971 0.4433827 0.4580181 0.3499639 0.3083141 0.2547437
## Cluster 5 0.7294526 0.7058190 0.6965905 0.7423233 0.6532629 0.5982931 0.4989698
##
                 22659
                           22660
                                     22661
                                               22662
                                                          22663
                                                                    22664
                                                                              22665
```

```
## Cluster 1 0.2162984 0.1896989 0.1766034 0.1648263 0.1596618 0.1586830 0.1596751
## Cluster 2 0.2176334 0.1888152 0.1704839 0.1631935 0.1560704 0.1510792 0.1537918
## Cluster 3 0.3265830 0.2803461 0.2404170 0.2216936 0.2174993 0.2055418 0.1951319
## Cluster 4 0.2635993 0.2292563 0.2148087 0.2043357 0.2131516 0.2201372 0.2261047
## Cluster 5 0.4149957 0.3876250 0.3330129 0.2866509 0.2899828 0.2697457 0.2558147
                 22666
                                                         22670
                           22667
                                     22668
                                               22669
                                                                    22671
## Cluster 1 0.1700716 0.1736525 0.1788064 0.1971101 0.2255106 0.3045968 0.4134032
## Cluster 2 0.1581965 0.1632023 0.1889413 0.2683314 0.2909531 0.3709677 0.4131525
## Cluster 3 0.2041078 0.2080610 0.2161702 0.2385645 0.2613660 0.3137872 0.3085121
## Cluster 4 0.2357076 0.2825018 0.3381083 0.4329964 0.4778375 0.5439242 0.6280542
  Cluster 5 0.2267759 0.2288319 0.2161336 0.2580991 0.2627888 0.3229181 0.3555905
                                                         22677
                           22674
                                     22675
                                               22676
                 22673
                                                                    22678
                                                                              22679
## Cluster 1 0.5011366 0.4947374 0.5571366 0.5979271 0.5677507 0.5582016 0.5702029
## Cluster 2 0.4643431 0.4132053 0.3558886 0.3574106 0.3580176 0.3508710 0.3083314
## Cluster 3 0.3752270 0.4316823 0.4337589 0.4980270 0.5400482 0.5673986 0.5856298
## Cluster 4 0.5997148 0.5792599 0.5051552 0.5006318 0.4826823 0.4771083 0.4558267
## Cluster 5 0.3866552 0.3953664 0.4185086 0.4017457 0.3633836 0.4145948 0.4657759
##
                 22680
                           22681
                                     22682
                                               22683
                                                         22684
                                                                    22685
                                                                              22686
## Cluster 1 0.5700995 0.5592891 0.6026008 0.6209788 0.5540119 0.5384496 0.5340199
## Cluster 2 0.3190821 0.3293666 0.3521818 0.3539824 0.3194692 0.3319267 0.3731789
## Cluster 3 0.5721035 0.6389305 0.6376184 0.6808184 0.6431773 0.6415206 0.5890894
## Cluster 4 0.4677112 0.5004982 0.5364765 0.5313827 0.5041227 0.5164549 0.5365884
## Cluster 5 0.4424052 0.4409784 0.4617629 0.4030345 0.3911164 0.3947371 0.3744224
                 22687
                           22688
                                     22689
                                               22690
                                                         22691
                                                                    22692
## Cluster 1 0.5464973 0.5528780 0.6111353 0.6387692 0.7773873 0.9059828 0.9423011
## Cluster 2 0.3537654 0.3691496 0.4014018 0.4737155 0.5076481 0.6226833 0.9097302
## Cluster 3 0.6098865 0.6350213 0.7065149 0.7400142 0.7901589 0.7993021 0.8802014
## Cluster 4 0.5266462 0.5348412 0.6165126 0.6449422 0.6520578 0.7047762 0.6493502
## Cluster 5 0.3569828 0.3825560 0.4055345 0.4351940 0.4346078 0.4974095 0.5458534
                 22694
                           22695
                                     22696
                                               22697
                                                         22698
                                                                    22699
                                                                              22700
## Cluster 1 0.9894576 1.0071167 0.9882905 0.9314271 0.8839430 0.8459841 0.7430862
## Cluster 2 0.9488065 1.0124516 1.0397390 1.0547331 0.9573490 0.9648211 0.8656334
## Cluster 3 0.9152582 0.9372511 0.9577645 0.8955021 0.8642610 0.8258766 0.7916241
## Cluster 4 0.7301083 0.7100144 0.6915415 0.6425415 0.6332852 0.5867329 0.5678953
## Cluster 5 0.6681810 0.7750388 0.6955216 0.7022802 0.7274181 0.8040474 0.7572974
                           22702
                                     22703
                                               22704
                                                         22705
                 22701
                                                                    22706
                                                                              22707
## Cluster 1 0.6958846 0.6307202 0.5646552 0.4874271 0.3891300 0.3016512 0.2574337
## Cluster 2 0.8154047 0.7438886 0.6127859 0.5283666 0.4127419 0.3313372 0.2680440
## Cluster 3 0.7474794 0.7365702 0.7009645 0.6232071 0.5376142 0.4474738 0.3797333
## Cluster 4 0.5235343 0.5061011 0.4734440 0.4242671 0.3390000 0.3018123 0.2859025
## Cluster 5 0.7275345 0.7367802 0.6930647 0.6908190 0.6248147 0.5499224 0.4949569
                 22708
                           22709
                                     22710
                                               22711
                                                         22712
                                                                    22713
                                                                              22714
## Cluster 1 0.2200504 0.1930186 0.1834257 0.1756141 0.1686300 0.1612109 0.1624589
## Cluster 2 0.2130938 0.1905513 0.1690762 0.1504106 0.1491378 0.1467390 0.1485161
## Cluster 3 0.3308596 0.2745660 0.2458426 0.2271816 0.2227801 0.2035007 0.2032667
## Cluster 4 0.2280866 0.2432888 0.2209964 0.2110325 0.2136498 0.2331191 0.2412960
## Cluster 5 0.4397543 0.3636379 0.3251853 0.2682759 0.2720948 0.2669741 0.2577198
##
                 22715
                           22716
                                     22717
                                               22718
                                                         22719
                                                                    22720
                                                                              22721
## Cluster 1 0.1646790 0.1700398 0.1822374 0.1945424 0.2443833 0.2737042 0.3449178
## Cluster 2 0.1575337 0.1613343 0.1801026 0.1909326 0.2072845 0.2665044 0.3331701
## Cluster 3 0.1983603 0.2100156 0.2173518 0.2263305 0.2281631 0.2425348 0.2959972
## Cluster 4 0.2810397 0.2756606 0.3144693 0.3247329 0.4320903 0.5193682 0.5604079
## Cluster 5 0.2473534 0.2348534 0.2521250 0.2886207 0.2949095 0.3246293 0.3490647
##
                 22722
                           22723
                                     22724
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                                                         22726
                                                                    22727
                                                                              22728
```

```
## Cluster 1 0.4219509 0.5521737 0.6331631 0.6605212 0.6722334 0.7205159 0.7191817
## Cluster 2 0.4014194 0.4081320 0.4286540 0.5087449 0.5224106 0.5570469 0.5497859
## Cluster 3 0.3386496 0.3855674 0.4752766 0.5472582 0.5828440 0.6292397 0.6607674
## Cluster 4 0.5610181 0.5992527 0.6291264 0.6031300 0.5670433 0.5760542 0.5183610
## Cluster 5 0.3450302 0.3652198 0.4075216 0.4569784 0.4670603 0.4152543 0.4401767
                 22729
                                               22732
                                                          22733
##
                           22730
                                     22731
                                                                    22734
                                                                              22735
## Cluster 1 0.6790040 0.7128395 0.7091459 0.6433581 0.6274960 0.6264828 0.5977653
## Cluster 2 0.5146745 0.5058065 0.4713431 0.4628240 0.5185924 0.4889150 0.4090440
## Cluster 3 0.7337050 0.7068667 0.7075333 0.7084496 0.6856028 0.6889475 0.6933887
## Cluster 4 0.5099819 0.5046029 0.5335054 0.5283791 0.5138736 0.5407690 0.4616895
  Cluster 5 0.4497931 0.4290302 0.4329698 0.4433879 0.3964612 0.4227586 0.4702888
                 22736
                           22737
                                     22738
                                               22739
                                                          22740
                                                                    22741
                                                                              22742
## Cluster 1 0.6105531 0.6576472 0.7017387 0.8857294 1.0007653 1.0739987 1.0829668
## Cluster 2 0.4227947 0.4335015 0.4941906 0.5217654 0.6799355 0.8601554 1.0692639
## Cluster 3 0.6644638 0.7313915 0.7562482 0.7862043 0.8396723 0.9427234 1.0091915
## Cluster 4 0.4735668 0.5544368 0.5649603 0.5960650 0.7431047 0.8249061 0.8667870
## Cluster 5 0.4338836 0.4640905 0.4563362 0.4663534 0.5181638 0.6847931 0.7724957
##
                 22743
                           22744
                                     22745
                                               22746
                                                          22747
                                                                    22748
                                                                              22749
## Cluster 1 1.0484019 1.0335862 0.9349151 0.8186485 0.7618342 0.7288806 0.6621844
## Cluster 2 1.1171085 1.0405161 0.9623431 0.8572581 0.8474751 0.7594018 0.8086774
## Cluster 3 0.9972426 0.9847801 0.8936950 0.8940014 0.8599887 0.8079234 0.7606865
## Cluster 4 0.7809603 0.7292924 0.7192491 0.6241661 0.6107798 0.5863971 0.5181444
## Cluster 5 0.8164138 0.8137802 0.7332112 0.7367198 0.7424957 0.6865259 0.6977198
                 22750
                           22751
                                     22800
                                               22803
                                                          22804
## Cluster 1 0.6152944 0.5869430 0.3678806 0.2782639 0.2336286 0.1956777 0.1747241
## Cluster 2 0.7368534 0.6227097 0.4185455 0.3059971 0.2537126 0.2137155 0.1841789
## Cluster 3 0.6765830 0.6627277 0.5445504 0.4484241 0.3638567 0.3013362 0.2555943
## Cluster 4 0.4947473 0.4557220 0.3327004 0.2905668 0.2435379 0.2362202 0.2076823
## Cluster 5 0.6415862 0.6831164 0.7797328 0.6633103 0.5627198 0.4271983 0.3492198
##
                 22807
                           22808
                                     22809
                                               22810
                                                          22811
                                                                    22812
                                                                              22813
## Cluster 1 0.1662984 0.1574456 0.1548369 0.1599191 0.1645544 0.1609562 0.1647719
## Cluster 2 0.1792698 0.1545924 0.1509707 0.1445543 0.1442317 0.1510000 0.1682053
## Cluster 3 0.2252298 0.2184369 0.1975206 0.1990553 0.1959844 0.2064610 0.2048809
## Cluster 4 0.2272166 0.2098628 0.2195668 0.2411191 0.2462130 0.2524224 0.2856643
## Cluster 5 0.2950129 0.2859957 0.2634741 0.2485862 0.2657414 0.2304569 0.2414784
                                     22816
                                                          22818
                 22814
                           22815
                                               22817
                                                                    22819
                                                                              22820
## Cluster 1 0.1781207 0.2096565 0.2597069 0.4097586 0.5376340 0.6033289 0.5306446
## Cluster 2 0.1878504 0.2751349 0.3209120 0.3876745 0.4303490 0.4096334 0.3566158
## Cluster 3 0.2137092 0.2368979 0.2711135 0.3458936 0.4007986 0.4894411 0.4620681
## Cluster 4 0.3328267 0.4031733 0.5780036 0.7353394 0.7587292 0.7050253 0.5972491
## Cluster 5 0.2567328 0.2647500 0.2835603 0.3754828 0.4960474 0.4842328 0.4275733
                 22821
                           22822
                                     22823
                                               22824
                                                          22825
                                                                              22827
                                                                    22826
## Cluster 1 0.5075438 0.5430902 0.5050809 0.5367003 0.5464801 0.5065371 0.5604244
## Cluster 2 0.3156628 0.3032170 0.3319003 0.3147126 0.2935601 0.2686276 0.2914751
## Cluster 3 0.4548794 0.4600723 0.4824525 0.5187277 0.5439830 0.5523277 0.5717177
## Cluster 4 0.5329928 0.4522058 0.4112383 0.3838339 0.4353538 0.4538736 0.4703718
## Cluster 5 0.3714828 0.3609095 0.3410517 0.3388922 0.3626724 0.3814440 0.3952543
                           22829
                                     22830
##
                 22828
                                               22831
                                                          22832
                                                                    22833
                                                                              22834
## Cluster 1 0.5604867 0.5751963 0.5234416 0.5272825 0.5539841 0.5986233 0.6295027
## Cluster 2 0.3151290 0.3584751 0.3239853 0.3644311 0.3875601 0.3498680 0.3814340
## Cluster 3 0.6150440 0.6541957 0.6297901 0.6010809 0.6047887 0.6752794 0.6758426
## Cluster 4 0.4652238 0.4295740 0.4589892 0.4564440 0.4710722 0.4758484 0.5361552
## Cluster 5 0.4367888 0.3911250 0.3558922 0.3577802 0.3993190 0.4135345 0.4380948
##
                 22835
                           22836
                                     22837
                                               22838
                                                          22839
                                                                    22840
                                                                              22841
```

```
## Cluster 1 0.7295915 0.8810729 1.1278369 1.2350862 1.1835225 1.0683859 1.0329496
## Cluster 2 0.4302199 0.5492082 0.7081437 0.9256012 1.0603226 1.0877830 1.1287654
## Cluster 3 0.7566255 0.8861262 0.9841291 1.0278369 1.0240014 0.9421163 0.9719206
## Cluster 4 0.6395307 0.7988592 0.8555704 0.9675523 0.8853827 0.8493646 0.8493755
## Cluster 5 0.4807586 0.5597759 0.6430647 0.7417586 0.7916164 0.7943491 0.7992888
                                     22844
                                                          22846
##
                 22842
                           22843
                                               22845
                                                                    22847
                                                                              22848
## Cluster 1 0.9429244 0.9564178 0.9150902 0.8537918 0.7602016 0.6767825 0.5839310
## Cluster 2 1.1314076 1.0429062 1.0460000 0.9915191 0.9064692 0.8375572 0.6981789
## Cluster 3 0.9409277 0.9127277 0.9141560 0.8719248 0.8271064 0.7925816 0.7120184
## Cluster 4 0.7856751 0.7054513 0.7207726 0.7284801 0.6197076 0.5896065 0.5164368
  Cluster 5 0.7703793 0.7842974 0.7389612 0.8204784 0.8112543 0.7559871 0.7491336
                           22850
                                     22851
                                               22852
                 22849
                                                          22853
                                                                    22854
                                                                              22855
## Cluster 1 0.4812056 0.3922798 0.2949045 0.2300027 0.1838276 0.1739085 0.1701432
## Cluster 2 0.5980909 0.4725337 0.3173871 0.2526422 0.2093988 0.1797185 0.1658299
## Cluster 3 0.6045957 0.5090922 0.4207660 0.3368624 0.2775262 0.2420681 0.2218227
## Cluster 4 0.4358051 0.3538773 0.2984874 0.2534657 0.2293718 0.2199242 0.2021408
## Cluster 5 0.7532974 0.7594483 0.6222931 0.4634569 0.4039181 0.3122845 0.3030259
##
                 22856
                           22857
                                     22858
                                               22859
                                                          22860
                                                                    22861
                                                                              22862
## Cluster 1 0.1676737 0.1575451 0.1520676 0.1520968 0.1573899 0.1604549 0.1773515
## Cluster 2 0.1710762 0.1473695 0.1466217 0.1534047 0.1472082 0.1654399 0.1862199
## Cluster 3 0.2110950 0.1936355 0.1980085 0.1980794 0.2140128 0.2091333 0.2225702
## Cluster 4 0.2150505 0.2303899 0.2367906 0.2315415 0.2462527 0.2661697 0.3227437
## Cluster 5 0.2836595 0.2680388 0.2382284 0.2497716 0.2257026 0.2389138 0.2490388
                 22863
                           22864
                                     22865
                                               22866
                                                          22867
                                                                    22868
## Cluster 1 0.1984098 0.2628408 0.4289164 0.6464310 0.6277215 0.5489005 0.5459761
## Cluster 2 0.2733021 0.3232170 0.4127537 0.4380264 0.4640440 0.3848387 0.2683226
## Cluster 3 0.2414255 0.2884525 0.3756525 0.4453461 0.5210667 0.4936879 0.4679929
## Cluster 4 0.4119819 0.6476137 0.8691625 0.8991047 0.7434910 0.6109278 0.5123321
## Cluster 5 0.2700086 0.2926250 0.3963060 0.4809224 0.4596034 0.3967112 0.3524353
##
                 22870
                           22871
                                     22872
                                               22873
                                                          22874
                                                                    22875
                                                                              22876
## Cluster 1 0.5048117 0.5135875 0.4925796 0.4791260 0.4776326 0.4981313 0.5291393
## Cluster 2 0.2581173 0.2811496 0.2496070 0.2566745 0.2573343 0.2690938 0.2872786
## Cluster 3 0.4677461 0.4608128 0.4574397 0.4875319 0.4765972 0.5263816 0.5663603
## Cluster 4 0.4299278 0.3886931 0.3849242 0.3903466 0.4070866 0.4008051 0.4241011
  Cluster 5 0.3625517 0.3390776 0.3811638 0.3424095 0.3994267 0.3662888 0.3725302
                                     22879
                                               22880
                 22877
                           22878
                                                          22881
                                                                    22882
                                                                              22883
## Cluster 1 0.5232175 0.5007692 0.4913873 0.5089735 0.5887679 0.6439960 0.7655902
## Cluster 2 0.2829883 0.2833314 0.2769150 0.2930029 0.3122669 0.3552229 0.3626804
## Cluster 3 0.5709348 0.5390184 0.5266539 0.6044879 0.6648879 0.7063163 0.7630383
## Cluster 4 0.4412130 0.4595812 0.5353791 0.5675523 0.5481949 0.5740614 0.6624729
## Cluster 5 0.4042155 0.3827586 0.3869655 0.3972759 0.3648707 0.4276983 0.4547457
                 22884
                           22885
                                     22886
                                               22887
                                                          22888
                                                                    22889
                                                                              22890
## Cluster 1 0.9408541 1.1102162 1.2055703 1.1737188 1.0905212 1.0399178 0.9702095
## Cluster 2 0.4768974 0.6892962 0.8934545 1.0579413 1.1114194 1.1344868 1.1211408
## Cluster 3 0.8843149 0.9692440 1.0413518 1.0123163 0.9547887 0.9817092 0.9098369
## Cluster 4 0.7992383 0.9262491 0.8812852 0.8882347 0.8723863 0.8623321 0.7850830
## Cluster 5 0.5190216 0.5993966 0.6984612 0.7904957 0.7770388 0.8043362 0.7489741
                           22892
                                     22893
##
                 22891
                                               22894
                                                          22895
                                                                    22896
                                                                              22897
## Cluster 1 0.9648674 0.9705318 0.8540637 0.8017480 0.6916645 0.5758886 0.5087202
## Cluster 2 1.0408123 0.9812082 1.0075982 0.9077361 0.8086833 0.7244252 0.6186276
## Cluster 3 0.8945660 0.9051078 0.8767702 0.8430340 0.7924851 0.7196028 0.6747589
## Cluster 4 0.6803971 0.6939711 0.6623574 0.6176895 0.5299242 0.4973177 0.4352094
## Cluster 5 0.7497414 0.7984612 0.7867543 0.7725129 0.7602198 0.7547629 0.8525647
##
                 22898
                           22899
                                     22900
                                               22901
                                                          22902
                                                                    22903
                                                                              22904
```

```
## Cluster 1 0.3842599 0.2809005 0.2215477 0.1890491 0.1650133 0.1636207 0.1549814
## Cluster 2 0.4640762 0.3342757 0.2743900 0.2021056 0.1717038 0.1571173 0.1539501
## Cluster 3 0.5471631 0.4152298 0.3321603 0.2789872 0.2444426 0.2241844 0.2117277
## Cluster 4 0.3789964 0.3062347 0.2431047 0.2542310 0.2261913 0.2119314 0.2161227
## Cluster 5 0.7600172 0.6301466 0.4933362 0.4328879 0.3621724 0.3033836 0.3097328
                 22905
                           22906
                                     22907
                                               22908
                                                          22909
##
                                                                    22910
## Cluster 1 0.1578780 0.1526393 0.1513223 0.1596658 0.1641751 0.1764881 0.1934589
## Cluster 2 0.1564135 0.1448798 0.1519296 0.1603812 0.1714164 0.1814663 0.2891935
## Cluster 3 0.2005660 0.1954213 0.1948255 0.1982936 0.2065617 0.2165433 0.2596652
## Cluster 4 0.2314260 0.2475199 0.2439061 0.2420650 0.2808375 0.3255560 0.4305415
  Cluster 5 0.2614957 0.2484181 0.2529483 0.2281509 0.2704655 0.2446595 0.2670259
                                               22915
                           22913
                                     22914
                 22912
                                                          22916
                                                                    22917
                                                                              22918
## Cluster 1 0.2708939 0.3912785 0.5990080 0.5905769 0.5679032 0.5405836 0.5156671
## Cluster 2 0.3573666 0.4450762 0.5029560 0.5077097 0.3954516 0.2903812 0.2609707
## Cluster 3 0.2886312 0.3706128 0.4521730 0.4616213 0.4616496 0.4351489 0.4280567
## Cluster 4 0.6176679 0.8416209 0.9205560 0.7471552 0.5176643 0.4758159 0.4528881
## Cluster 5 0.2861940 0.3813147 0.4667069 0.4069440 0.3790172 0.3963362 0.3626293
##
                 22919
                           22920
                                     22921
                                               22922
                                                          22923
                                                                    22924
                                                                              22925
## Cluster 1 0.4964085 0.4680411 0.4467308 0.4586353 0.4815557 0.4790889 0.4969642
## Cluster 2 0.2940499 0.2599443 0.2232229 0.2338328 0.2401349 0.2693607 0.2961642
## Cluster 3 0.4598270 0.4860809 0.4862610 0.5011362 0.5213716 0.5496879 0.5610752
## Cluster 4 0.3962202 0.3842563 0.3857184 0.3555090 0.3882058 0.4254729 0.4429314
## Cluster 5 0.3202586 0.3446379 0.3385948 0.3464612 0.3454655 0.3458836 0.3735517
                 22926
                           22927
                                     22928
                                               22929
                                                          22930
                                                                    22931
## Cluster 1 0.5126247 0.4892679 0.4896074 0.5038448 0.5690411 0.6942109 0.8736565
## Cluster 2 0.2606774 0.2397009 0.2394516 0.2813314 0.3357185 0.3858622 0.4785337
## Cluster 3 0.5342567 0.5239773 0.5977660 0.6177461 0.6636071 0.7732355 0.8962227
## Cluster 4 0.4041913 0.3800325 0.4326895 0.4596318 0.5159531 0.6078448 0.7566318
## Cluster 5 0.3248793 0.3577241 0.3117672 0.3729310 0.4114052 0.4348578 0.5109655
##
                 22933
                           22934
                                     22935
                                               22936
                                                          22937
                                                                    22938
                                                                              22939
## Cluster 1 1.0752732 1.2200570 1.1730477 1.0649072 1.0790305 1.0059721 0.9556313
## Cluster 2 0.6495806 0.8239032 0.9827889 1.0214399 1.0587302 1.1066364 1.0177801
## Cluster 3 0.9870709 1.0708128 1.0564312 1.0202000 0.9806156 0.9464411 0.8920411
## Cluster 4 0.8195379 0.8723574 0.8669711 0.8183321 0.8286101 0.7610939 0.7630036
  Cluster 5 0.6331466 0.6925129 0.7884526 0.8075474 0.8243233 0.8485560 0.8106379
                           22941
                                     22942
                                               22943
                                                          22944
                 22940
                                                                    22945
                                                                              22946
## Cluster 1 0.8909191 0.8614973 0.7976233 0.7243926 0.6148554 0.5166141 0.4209934
## Cluster 2 0.9991760 0.9725689 0.9733988 0.8907273 0.7997977 0.6108798 0.4762815
## Cluster 3 0.9268879 0.8689957 0.8348241 0.8374539 0.7261234 0.7081433 0.5666270
## Cluster 4 0.7360108 0.7187473 0.6104043 0.5600397 0.5492419 0.4672816 0.3556968
## Cluster 5 0.7659741 0.8063793 0.7425259 0.7298836 0.7036853 0.8191078 0.7312716
                 22947
                           22948
                                     22949
                                               22950
                                                          22951
                                                                    22952
                                                                              22953
## Cluster 1 0.3156207 0.2376737 0.2097613 0.1772626 0.1669403 0.1641936 0.1616034
## Cluster 2 0.3237801 0.2662874 0.2206598 0.1762317 0.1804516 0.1560997 0.1490968
## Cluster 3 0.4566270 0.3619461 0.3027972 0.2587191 0.2398199 0.2155830 0.2064865
## Cluster 4 0.3090072 0.2643357 0.2259856 0.2127401 0.2110289 0.2325560 0.2167292
## Cluster 5 0.6708233 0.5327500 0.4330431 0.3652672 0.3581983 0.3224483 0.2753319
                 22954
                           22955
##
                                     22956
                                               22957
                                                          22958
                                                                    22959
                                                                              22960
## Cluster 1 0.1575133 0.1625491 0.1663992 0.1692003 0.1762294 0.2120451 0.2586631
## Cluster 2 0.1448915 0.1609707 0.1614399 0.1625924 0.1775455 0.2891173 0.3373842
## Cluster 3 0.2047050 0.2029461 0.2079603 0.2082057 0.2188170 0.2369986 0.2777589
## Cluster 4 0.2278809 0.2383755 0.2364657 0.2672094 0.3334116 0.4240217 0.6171047
## Cluster 5 0.2528233 0.2415819 0.2270560 0.2304914 0.2397198 0.2656767 0.2812845
##
                 22961
                           22962
                                     22963
                                               22964
                                                          22965
                                                                    22966
                                                                              22967
```

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## Cluster 1 0.4158899 0.6014576 0.5739708 0.5508528 0.4859430 0.4907016 0.4848793
## Cluster 2 0.4296774 0.4628944 0.4651906 0.3662786 0.2833812 0.2859091 0.2439824
## Cluster 3 0.3659220 0.4409887 0.4962043 0.4706383 0.4387801 0.4361333 0.4486879
## Cluster 4 0.7777076 0.8925848 0.6866101 0.5221913 0.4575379 0.3964657 0.3901625
## Cluster 5 0.4238836 0.4733879 0.4780862 0.4426121 0.3550603 0.3677241 0.3987026
                 22968
                           22969
                                     22970
                                                         22972
##
                                               22971
                                                                    22973
                                                                              22974
## Cluster 1 0.4561658 0.4771645 0.4651578 0.4612215 0.4725623 0.5103806 0.5057308
## Cluster 2 0.2677566 0.2723255 0.2420411 0.2668387 0.2695689 0.2886158 0.3025279
## Cluster 3 0.4747404 0.4902482 0.4792184 0.5201461 0.5331773 0.5357106 0.5255674
## Cluster 4 0.3922274 0.3778989 0.3552274 0.3838087 0.3839458 0.4136606 0.4555848
  Cluster 5 0.3407802 0.3217328 0.2794871 0.3668664 0.3379741 0.3543405 0.3637802
                 22975
                           22976
                                     22977
                                               22978
                                                         22979
                                                                    22980
                                                                              22981
## Cluster 1 0.5416286 0.5225186 0.4947427 0.5905915 0.6815570 0.8573846 1.0943899
## Cluster 2 0.2870000 0.2795367 0.3318680 0.3802258 0.3699267 0.4811789 0.6321906
## Cluster 3 0.5374752 0.5807106 0.6316099 0.6810709 0.7909589 0.8764553 0.9305333
## Cluster 4 0.4626643 0.4798339 0.5013935 0.5542310 0.6176462 0.8215126 0.8124260
## Cluster 5 0.3775172 0.3865819 0.3652759 0.3418534 0.3921595 0.5045819 0.6052155
##
                 22982
                           22983
                                     22984
                                               22985
                                                         22986
                                                                    22987
                                                                              22988
## Cluster 1 1.2187785 1.1564814 1.0534456 1.0214390 0.9524151 0.9281936 0.8550186
## Cluster 2 0.8272229 1.0661202 1.0322082 1.0695543 1.0896891 1.0199208 1.0183988
## Cluster 3 0.9730199 0.9801858 0.9344270 0.9411433 0.9053830 0.8883333 0.8781277
## Cluster 4 0.8314874 0.8403069 0.8212960 0.7585740 0.7324296 0.6926245 0.6677148
## Cluster 5 0.6784397 0.7360431 0.7537672 0.7588922 0.7283319 0.7087716 0.6618750
                 22989
                           22990
                                     22991
                                               22992
                                                         22993
                                                                    22994
## Cluster 1 0.8176605 0.7832016 0.7020013 0.6011724 0.5102613 0.4073806 0.3186419
## Cluster 2 0.9992111 0.9426686 0.8472815 0.7226569 0.5365601 0.4354839 0.3257625
## Cluster 3 0.9054610 0.8800000 0.8052411 0.7422199 0.6584723 0.5842794 0.4570270
## Cluster 4 0.6380758 0.5970975 0.5832563 0.4775271 0.4601986 0.4056823 0.3468809
## Cluster 5 0.7291336 0.7382457 0.7581422 0.7728405 0.8153190 0.7187672 0.6584526
                 22996
                           22997
                                     22998
                                               22999
                                                         23000
                                                                    23001
                                                                              23002
## Cluster 1 0.2428263 0.2046844 0.1833647 0.1742997 0.1688011 0.1570875 0.1590411
## Cluster 2 0.2455513 0.2060381 0.1840381 0.1681994 0.1575748 0.1532610 0.1511114
## Cluster 3 0.3684809 0.2965801 0.2550652 0.2333830 0.2183943 0.2018525 0.1989759
## Cluster 4 0.2899025 0.2361805 0.2170361 0.2023213 0.2084657 0.2130903 0.2153755
## Cluster 5 0.5464828 0.4465560 0.3492888 0.3183922 0.2779483 0.2371681 0.2283362
                                     23005
                                               23006
                                                         23007
                 23003
                           23004
                                                                    23008
                                                                              23009
## Cluster 1 0.1643607 0.1649310 0.1783236 0.1921897 0.2007971 0.2448621 0.4278276
## Cluster 2 0.1646921 0.1654018 0.1630587 0.1909355 0.3037947 0.3183695 0.4163138
## Cluster 3 0.1996496 0.1988426 0.2140085 0.2215518 0.2420227 0.2724993 0.3692709
## Cluster 4 0.2310903 0.2596931 0.2539603 0.3039928 0.4362094 0.5722924 0.7648195
## Cluster 5 0.2448103 0.2199741 0.2189267 0.2307069 0.2419310 0.2645948 0.3580862
                 23010
                           23011
                                     23012
                                               23013
                                                         23014
                                                                    23015
                                                                              23016
## Cluster 1 0.5744801 0.6142175 0.5533435 0.5589761 0.4938395 0.5100875 0.4582135
## Cluster 2 0.5181789 0.4997361 0.3714751 0.2860000 0.2734428 0.2933578 0.2815748
## Cluster 3 0.4577348 0.4736028 0.4646369 0.4720652 0.4599021 0.4631121 0.4642993
## Cluster 4 0.8350650 0.7155235 0.6192094 0.5020181 0.4586679 0.4393646 0.4086282
## Cluster 5 0.4236121 0.4401724 0.3897457 0.3634784 0.3228405 0.3478922 0.3414914
                           23018
                                     23019
                                                         23021
##
                 23017
                                               23020
                                                                    23022
                                                                              23023
## Cluster 1 0.4493714 0.4537241 0.4883501 0.5011525 0.5009960 0.4438183 0.4405875
## Cluster 2 0.2330645 0.2556334 0.2963930 0.3030499 0.3125689 0.3046041 0.2989032
## Cluster 3 0.4822028 0.4733390 0.4939518 0.5297007 0.5440582 0.5418738 0.5561220
## Cluster 4 0.4058736 0.3513538 0.3644296 0.3591480 0.4175740 0.4098953 0.4067870
## Cluster 5 0.3342974 0.3181509 0.3531422 0.3555603 0.3355690 0.3656422 0.3497069
##
                 23024
                           23025
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                                               23027
                                                         23028
                                                                    23029
                                                                              23030
```

```
## Cluster 1 0.4569695 0.4927546 0.5539523 0.6524509 0.7947268 1.0321326 1.1309907
## Cluster 2 0.3063490 0.3126569 0.3442815 0.3994633 0.4720088 0.6152170 0.8305630
## Cluster 3 0.5516723 0.6001348 0.6592766 0.7393078 0.8982426 0.9583943 0.9963816
## Cluster 4 0.4833357 0.5174874 0.5270614 0.5878592 0.7634585 0.8539928 0.8667220
## Cluster 5 0.3579698 0.3647629 0.3702672 0.4614052 0.4897586 0.5340862 0.6567414
                 23031
                           23032
                                     23033
                                               23034
                                                          23035
                                                                    23036
##
                                                                              23037
## Cluster 1 1.1118064 1.0658700 1.0130133 0.9499735 0.9186857 0.8700623 0.8737321
## Cluster 2 0.9759355 0.9798710 1.0910938 1.0908123 0.9835660 0.9563138 0.9507419
## Cluster 3 1.0556709 0.9903362 0.9728723 0.9597064 0.9041021 0.8648511 0.8903234
## Cluster 4 0.8702058 0.8102419 0.8449025 0.7429603 0.6570361 0.6901588 0.6243285
  Cluster 5 0.6977672 0.7567672 0.7923233 0.7673017 0.7619612 0.7055043 0.7342155
                 23038
                           23039
                                     23040
                                               23041
                                                          23042
                                                                    23043
                                                                              23044
## Cluster 1 0.8014257 0.7284748 0.6358170 0.5678037 0.4955544 0.3846141 0.3031088
## Cluster 2 0.8719413 0.8596217 0.8139677 0.6972551 0.5832375 0.4588152 0.3459267
## Cluster 3 0.8284695 0.7581787 0.7211660 0.6734482 0.6143504 0.5358440 0.4352695
## Cluster 4 0.6396679 0.5797292 0.5333249 0.4629242 0.4398448 0.3558664 0.3043538
## Cluster 5 0.7603836 0.7303966 0.6838405 0.7484655 0.7330905 0.6214957 0.5482069
##
                 23045
                           23046
                                     23047
                                               23048
                                                          23049
                                                                    23050
                                                                              23051
## Cluster 1 0.2548806 0.2175292 0.1869257 0.1702334 0.1640849 0.1628621 0.1655318
## Cluster 2 0.2812845 0.2321525 0.2038886 0.1730792 0.1677977 0.1684194 0.1663372
## Cluster 3 0.3590780 0.3001943 0.2660085 0.2479433 0.2224284 0.2132411 0.2095319
## Cluster 4 0.2742780 0.2490722 0.2213466 0.2146534 0.2324982 0.2623141 0.2527112
## Cluster 5 0.4406207 0.3707241 0.3222845 0.3129310 0.2908793 0.2647284 0.2723534
                 23052
                           23053
                                     23054
                                               23055
                                                          23056
                                                                    23057
## Cluster 1 0.1667878 0.1757944 0.1849775 0.1861883 0.1975199 0.2270650 0.2882361
## Cluster 2 0.1667038 0.1667390 0.1725455 0.2034370 0.2239384 0.2629120 0.2630968
## Cluster 3 0.2125830 0.2074043 0.2071050 0.2190879 0.2227688 0.2466326 0.2785319
## Cluster 4 0.2552419 0.2714332 0.2908881 0.3123141 0.3541480 0.4598231 0.5831877
## Cluster 5 0.2442759 0.2419138 0.2392543 0.2385129 0.2228491 0.2702457 0.3283448
##
                 23059
                           23060
                                     23061
                                               23062
                                                          23063
                                                                    23064
                                                                              23065
## Cluster 1 0.4107918 0.4818926 0.6104363 0.7427480 0.7269536 0.6820690 0.6955889
## Cluster 2 0.3420616 0.3949091 0.4531818 0.4921144 0.4943343 0.4406012 0.4696188
## Cluster 3 0.3226071 0.3823447 0.4744000 0.5421078 0.5889943 0.6342936 0.6642567
## Cluster 4 0.6285848 0.5900830 0.6568773 0.5680505 0.5999531 0.4863105 0.5407256
  Cluster 5 0.3427241 0.3407759 0.3634612 0.3753966 0.4290647 0.4259914 0.4845948
                                     23068
                                               23069
                                                          23070
                 23066
                           23067
                                                                    23071
                                                                              23072
## Cluster 1 0.7500889 0.7314231 0.7591552 0.7938621 0.7095279 0.6889231 0.6671353
## Cluster 2 0.5096217 0.5385718 0.5626217 0.5687126 0.4833959 0.4844194 0.4543196
## Cluster 3 0.6562993 0.6926879 0.7224397 0.7673433 0.7308695 0.7381504 0.7210496
## Cluster 4 0.5932058 0.6486968 0.5751047 0.5630469 0.5534224 0.5136895 0.5023682
## Cluster 5 0.4606293 0.5838491 0.6038319 0.5696379 0.5933060 0.5535560 0.4930431
                 23073
                           23074
                                     23075
                                               23076
                                                          23077
                                                                    23078
                                                                              23079
## Cluster 1 0.6754496 0.7201034 0.7670464 0.9092639 1.1097639 1.2040265 1.1931021
## Cluster 2 0.5127947 0.4841994 0.5256657 0.5790909 0.7875484 0.9675161 1.0365279
## Cluster 3 0.7454028 0.7114270 0.7273149 0.8735447 1.0112113 1.0755603 1.0770454
## Cluster 4 0.5244729 0.5986534 0.6752708 0.7670650 0.8468339 0.8338592 0.8227726
## Cluster 5 0.5456681 0.5430216 0.5184095 0.5650086 0.6796034 0.7692759 0.8161638
                 23080
                                     23082
                                               23083
                                                          23084
##
                           23081
                                                                    23085
                                                                              23086
## Cluster 1 1.1117958 1.0196658 0.9472851 0.8814430 0.8027016 0.7826008 0.7466897
## Cluster 2 1.0628387 1.0137214 1.0573871 0.9731290 0.9052639 0.8431701 0.8283343
## Cluster 3 1.0429816 1.0094539 0.9512184 0.9083489 0.8546723 0.8397305 0.8382170
## Cluster 4 0.7829856 0.7393177 0.7104585 0.7180830 0.6634838 0.6047942 0.6074332
## Cluster 5 0.8892974 0.8530129 0.8436853 0.8093707 0.8044353 0.7545086 0.7611853
##
                 23087
                           23088
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                                               23090
                                                          23091
                                                                    23092
                                                                              23093
```

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## Cluster 1 0.6759125 0.6062560 0.5641963 0.4479032 0.3644032 0.3048820 0.2632308
## Cluster 2 0.7181261 0.6275865 0.6006129 0.4868152 0.4382141 0.3466657 0.3026334
## Cluster 3 0.7747262 0.7335887 0.6674184 0.5941801 0.5206355 0.4442738 0.3812312
## Cluster 4 0.5162924 0.5359856 0.4781119 0.4013538 0.3281516 0.2935632 0.2745018
## Cluster 5 0.7257414 0.7254741 0.7729052 0.7266422 0.6156595 0.5610733 0.4671078
                 23094
                           23095
                                     23096
                                                          23098
##
                                               23097
                                                                    23099
                                                                              23100
## Cluster 1 0.2302069 0.2061618 0.1885385 0.1722573 0.1681419 0.1629589 0.1598263
## Cluster 2 0.2552962 0.2149179 0.1935865 0.1797507 0.1788856 0.1647449 0.1622082
## Cluster 3 0.3286028 0.2814028 0.2687929 0.2533759 0.2217220 0.2131163 0.2058894
## Cluster 4 0.2446354 0.2360108 0.2353538 0.2408845 0.2474693 0.2499458 0.2566823
  Cluster 5 0.4291207 0.4013319 0.3432284 0.3038707 0.2926336 0.2744914 0.2525259
                           23102
                                     23103
                                               23104
                 23101
                                                          23105
                                                                    23106
                                                                              23107
## Cluster 1 0.1613050 0.1735133 0.1899523 0.1907507 0.2182056 0.2534536 0.3214695
## Cluster 2 0.1570616 0.1584047 0.1800440 0.1981496 0.2152639 0.2310674 0.2686217
## Cluster 3 0.2027858 0.2056539 0.2177674 0.2182950 0.2495518 0.2514440 0.2818184
## Cluster 4 0.2797653 0.2929531 0.3235235 0.3348989 0.3765379 0.5074260 0.5457653
## Cluster 5 0.2716207 0.2565862 0.2583060 0.2635043 0.2633276 0.2775991 0.2815948
##
                 23108
                           23109
                                     23110
                                               23111
                                                          23112
                                                                    23113
## Cluster 1 0.4444416 0.5803316 0.6773448 0.7910093 0.8469947 0.8289125 0.8067745
## Cluster 2 0.3340176 0.4302229 0.4510587 0.4961554 0.4953314 0.5107155 0.5578094
## Cluster 3 0.3516340 0.4009716 0.4986652 0.6102355 0.6867262 0.7091418 0.7574454
## Cluster 4 0.6065596 0.6684116 0.6456534 0.6231769 0.6719567 0.6821516 0.6410505
## Cluster 5 0.3385517 0.3756336 0.4324741 0.4514353 0.4577716 0.4467284 0.5552759
                 23115
                           23116
                                     23117
                                               23118
                                                          23119
                                                                    23120
## Cluster 1 0.8282016 0.8339496 0.8025252 0.8644111 0.8052745 0.8173912 0.8358952
## Cluster 2 0.5945982 0.6137097 0.5743314 0.6249179 0.5863930 0.5670440 0.6064751
## Cluster 3 0.8418014 0.8468539 0.8923447 0.9294965 0.9444255 0.8460936 0.8656993
## Cluster 4 0.6671083 0.7429134 0.7376968 0.6540939 0.6507942 0.6527509 0.6636643
## Cluster 5 0.5905216 0.5483879 0.55555517 0.5638448 0.5477672 0.5937457 0.6056336
##
                 23122
                           23123
                                     23124
                                               23125
                                                          23126
                                                                    23127
                                                                              23128
## Cluster 1 0.8531923 0.9215212 1.0362202 1.1325650 1.1468740 1.1434456 1.1009191
## Cluster 2 0.6496745 0.7312639 0.7693021 0.9484018 1.1357537 1.1384839 1.0623460
## Cluster 3 0.8769901 0.9633348 0.9559191 1.0065674 1.0161078 1.0263688 1.0395064
## Cluster 4 0.7059783 0.7521083 0.8081805 0.9558484 0.9331480 0.9034657 0.8242888
  Cluster 5 0.6500345 0.6585517 0.6924698 0.7606250 0.8185129 0.8906379 0.9381509
                           23130
                                     23131
                                               23132
                                                          23133
                 23129
                                                                    23134
                                                                              23135
## Cluster 1 1.0540345 0.9819271 0.8751273 0.8270836 0.8023316 0.7614231 0.6650159
## Cluster 2 1.1357742 1.0980088 0.9936950 0.9572757 0.9872023 0.9035396 0.8434487
## Cluster 3 1.0193730 0.9480355 0.9213319 0.8525759 0.8512936 0.8638496 0.8159901
## Cluster 4 0.7896968 0.7573430 0.6950542 0.6918700 0.6870036 0.6131877 0.5473827
## Cluster 5 0.8901897 0.8771810 0.9121250 0.7923491 0.7804784 0.8313017 0.7738836
                           23137
                                     23138
                                               23139
                                                          23140
                 23136
                                                                    23141
                                                                              23142
## Cluster 1 0.5695066 0.4605451 0.3685066 0.2834562 0.2204443 0.1953037 0.1738621
## Cluster 2 0.7264340 0.5589824 0.4266452 0.3228240 0.2609648 0.2065191 0.1795103
## Cluster 3 0.7454227 0.6584454 0.5392270 0.4330879 0.3844681 0.2969745 0.2614284
## Cluster 4 0.4904874 0.4061372 0.3492816 0.2841697 0.2667076 0.2480578 0.2514043
## Cluster 5 0.7346897 0.8552629 0.7645862 0.6208621 0.4984397 0.4240733 0.3579138
##
                 23143
                           23144
                                     23145
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                                                                    23148
                                                                              23149
## Cluster 1 0.1603886 0.1551645 0.1496804 0.1512095 0.1631379 0.1600053 0.1756485
## Cluster 2 0.1619677 0.1682962 0.1566364 0.1561760 0.1572991 0.1582639 0.1650674
## Cluster 3 0.2260298 0.2112213 0.1998979 0.1934426 0.1881560 0.1983121 0.2043121
## Cluster 4 0.2310181 0.2298592 0.2504188 0.2538014 0.2819856 0.3037942 0.3195812
## Cluster 5 0.3064569 0.2764181 0.2787716 0.2558534 0.2402974 0.2329181 0.2372802
##
                 23150
                           23151
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                                               23153
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                                                                    23155
                                                                              23156
```

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## Cluster 1 0.1770584 0.1948050 0.2520477 0.4092692 0.5695133 0.5947759 0.5469284
## Cluster 2 0.1817478 0.2774370 0.3513548 0.4403666 0.4754018 0.5204106 0.3821144
## Cluster 3 0.2083716 0.2405915 0.2700411 0.3696525 0.4371504 0.4868355 0.4643972
## Cluster 4 0.3760253 0.4546137 0.5977256 0.8036931 0.8102671 0.7079928 0.5479639
## Cluster 5 0.2466207 0.2783966 0.2832284 0.3705345 0.4307328 0.4506595 0.4265819
                                     23159
                                                          23161
                                                                    23162
##
                 23157
                           23158
                                               23160
                                                                              23163
## Cluster 1 0.5258899 0.4907692 0.4871233 0.4729430 0.4911578 0.4551552 0.4712812
## Cluster 2 0.3130381 0.2949443 0.2815865 0.3000059 0.2858944 0.2869883 0.2950792
## Cluster 3 0.4353574 0.4664369 0.4759035 0.5134752 0.5249021 0.5181716 0.5204340
## Cluster 4 0.4804657 0.4368556 0.4465271 0.4156390 0.3872455 0.3864296 0.4287617
  Cluster 5 0.3350431 0.3323362 0.3279353 0.3229828 0.3242414 0.3465862 0.3721379
                                     23166
                                               23167
                 23164
                           23165
                                                          23168
                                                                    23169
                                                                              23170
## Cluster 1 0.4945968 0.5438130 0.4979642 0.4773263 0.4848183 0.5254881 0.6359854
## Cluster 2 0.2771789 0.2725103 0.2553431 0.2782933 0.3092258 0.2927331 0.3460264
## Cluster 3 0.5585404 0.6271348 0.5740652 0.5580936 0.5875376 0.6763418 0.7058227
## Cluster 4 0.4203394 0.4473069 0.4453899 0.4625307 0.5233141 0.5362744 0.5953827
## Cluster 5 0.3731724 0.3910302 0.3631853 0.3435948 0.3594138 0.3566293 0.3964828
##
                 23171
                           23172
                                     23173
                                               23174
                                                          23175
                                                                    23176
                                                                              23177
## Cluster 1 0.7377878 0.9858355 1.2092334 1.2544456 1.2151167 1.0656817 1.0736141
## Cluster 2 0.4401935 0.4933578 0.7106305 0.9023226 1.0114839 1.0718152 1.0753021
## Cluster 3 0.8135489 0.9400397 0.9995121 1.0628922 1.0768837 1.0044312 0.9387504
## Cluster 4 0.7185379 0.8557184 0.9356354 0.9623718 0.9310650 0.8682635 0.8509639
## Cluster 5 0.4780862 0.5050517 0.6142198 0.7416724 0.8013836 0.8418879 0.8384138
                 23178
                           23179
                                     23180
                                               23181
                                                          23182
                                                                    23183
## Cluster 1 1.0208912 0.9943011 0.9523090 0.8814363 0.7764257 0.6819881 0.5750477
## Cluster 2 1.0813578 1.0663255 0.9952493 0.9591173 0.9601320 0.8831994 0.7642610
## Cluster 3 0.9340553 0.9297574 0.9151362 0.8903617 0.8586241 0.8204028 0.7473929
## Cluster 4 0.7731841 0.7614982 0.7093249 0.6811913 0.6562130 0.6101516 0.5166101
## Cluster 5 0.8147241 0.7921724 0.7771724 0.8265000 0.8506379 0.8428017 0.7914612
##
                 23185
                           23186
                                     23187
                                               23188
                                                          23189
                                                                    23190
                                                                              23191
## Cluster 1 0.5029841 0.4040199 0.2845252 0.2277918 0.1866061 0.1746592 0.1603011
## Cluster 2 0.6193343 0.4969736 0.3640880 0.2561437 0.2011056 0.1678035 0.1649032
## Cluster 3 0.6582908 0.5774794 0.4442979 0.3470823 0.2847816 0.2409986 0.2229206
## Cluster 4 0.4227798 0.3798303 0.3428520 0.2832274 0.2545523 0.2374513 0.2355993
## Cluster 5 0.8404828 0.7588060 0.6297629 0.4737284 0.4052888 0.3499483 0.3137759
                           23193
                 23192
                                     23194
                                                          23196
                                               23195
                                                                    23197
                                                                              23198
## Cluster 1 0.1549721 0.1508714 0.1507573 0.1542268 0.1574629 0.1652321 0.1751963
## Cluster 2 0.1607889 0.1537654 0.1482727 0.1512962 0.1524868 0.1614428 0.1776070
## Cluster 3 0.2129801 0.2008213 0.1920255 0.1908879 0.1983177 0.2023773 0.2064738
## Cluster 4 0.2325235 0.2350758 0.2470578 0.2677040 0.2833249 0.2910686 0.3584079
## Cluster 5 0.2961379 0.2816983 0.2650819 0.2490216 0.2488922 0.2413793 0.2550560
                 23199
                           23200
                                     23201
                                               23202
                                                          23203
                                                                    23204
                                                                              23205
## Cluster 1 0.1998780 0.2797454 0.4082666 0.5882931 0.5816857 0.5453912 0.5330146
## Cluster 2 0.2420440 0.3461965 0.4964370 0.4882199 0.4685161 0.3530411 0.2847977
## Cluster 3 0.2404270 0.2845248 0.3640638 0.4482908 0.4795262 0.4764170 0.4423050
## Cluster 4 0.4403935 0.6137617 0.8163971 0.9247942 0.7729747 0.5782924 0.4857292
## Cluster 5 0.2494095 0.2982284 0.3871767 0.4450474 0.4390086 0.4783276 0.4194353
                 23206
                           23207
                                     23208
                                               23209
##
                                                          23210
                                                                    23211
                                                                              23212
## Cluster 1 0.5094615 0.5324111 0.5200265 0.4770889 0.4521684 0.4867706 0.4922480
## Cluster 2 0.2782669 0.2468768 0.2516657 0.2443314 0.2305337 0.2354428 0.2779883
## Cluster 3 0.4411461 0.4903872 0.4894241 0.5273135 0.4961106 0.5302908 0.5458894
## Cluster 4 0.3994549 0.3505921 0.4501336 0.4015993 0.4215199 0.4162094 0.4803105
## Cluster 5 0.3581379 0.3544267 0.3709741 0.3308836 0.3223405 0.3399267 0.3714267
##
                 23213
                           23214
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                                                                    23218
                                                                              23219
```

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## Cluster 1 0.5122905 0.4767878 0.4756034 0.4845146 0.4933727 0.5737745 0.6492440
## Cluster 2 0.2821935 0.2650499 0.2832698 0.3076188 0.3258006 0.3623431 0.3857537
## Cluster 3 0.5642284 0.5433957 0.5623844 0.5993078 0.5872553 0.6450525 0.7461532
## Cluster 4 0.4519964 0.4316751 0.4337690 0.4309242 0.5162671 0.5440036 0.5853105
## Cluster 5 0.3897802 0.3879957 0.4232069 0.3981164 0.3603793 0.3596379 0.3975388
                 23220
                                     23222
                                               23223
                                                          23224
                                                                    23225
##
                           23221
                                                                              23226
## Cluster 1 0.8838289 1.1482560 1.2802493 1.2376592 1.1052865 1.0651485 1.0508501
## Cluster 2 0.4661202 0.6474340 0.8551437 1.0306686 1.0763138 1.1340557 1.0616716
## Cluster 3 0.9146908 0.9889504 1.0152440 1.0621035 0.9859660 0.9644809 0.9594397
## Cluster 4 0.7246715 0.9634982 1.0288628 0.9357690 0.8685199 0.8038267 0.8568628
  Cluster 5 0.4679052 0.6447414 0.7447802 0.7538922 0.7706940 0.7892629 0.7613103
                           23228
                                     23229
                                               23230
                 23227
                                                          23231
                                                                    23232
                                                                              23233
## Cluster 1 1.0042719 0.9502679 0.9043767 0.8184828 0.7218249 0.5891830 0.5108435
## Cluster 2 1.0651202 1.0569150 1.0334751 0.9375220 0.9001701 0.7415836 0.5792493
## Cluster 3 0.9004213 0.9198723 0.9060241 0.8633064 0.8081787 0.7055390 0.6524496
## Cluster 4 0.7851408 0.7449819 0.7183069 0.6318628 0.5938448 0.5037545 0.4733610
## Cluster 5 0.7766983 0.7730302 0.7675862 0.8164483 0.8156897 0.7924871 0.8013707
##
                 23234
                           23235
                                     23236
                                               23237
                                                          23238
                                                                    23239
                                                                              23240
## Cluster 1 0.4057321 0.2843912 0.2289178 0.1844045 0.1742560 0.1566088 0.1524907
## Cluster 2 0.4382082 0.3321232 0.2452199 0.2170117 0.1788680 0.1591290 0.1538446
## Cluster 3 0.5496809 0.4574794 0.3583631 0.2843730 0.2366071 0.2297603 0.2122837
## Cluster 4 0.3764513 0.3136968 0.2870975 0.2545054 0.2312347 0.2123394 0.2336823
## Cluster 5 0.6997112 0.5954181 0.5091379 0.4120474 0.3627371 0.3441983 0.2779267
                 23241
                           23242
                                     23243
                                               23244
                                                          23245
                                                                    23246
## Cluster 1 0.1506366 0.1519682 0.1580875 0.1612905 0.1678156 0.1839125 0.1957321
## Cluster 2 0.1396422 0.1468592 0.1467419 0.1453490 0.1539003 0.1706070 0.2530704
## Cluster 3 0.1968908 0.1991730 0.1981872 0.2067801 0.2135901 0.2208156 0.2463404
## Cluster 4 0.2369386 0.2390108 0.2525018 0.2675487 0.2927978 0.3364260 0.4046498
## Cluster 5 0.2725259 0.2783491 0.2631293 0.2399569 0.2445129 0.2647457 0.2719267
##
                 23248
                           23249
                                     23250
                                               23251
                                                          23252
                                                                    23253
                                                                              23254
## Cluster 1 0.2450093 0.4362785 0.6127851 0.6355066 0.5757321 0.5860013 0.5523952
## Cluster 2 0.3537478 0.4691320 0.4931877 0.4760909 0.3562053 0.3068504 0.2825191
## Cluster 3 0.2851348 0.3701674 0.4300695 0.4681390 0.5060667 0.4401106 0.4532454
## Cluster 4 0.6566137 0.8922599 0.8855343 0.7082635 0.6195018 0.5246643 0.5358412
  Cluster 5 0.3030043 0.3993448 0.5167586 0.5353103 0.5569655 0.4008405 0.3800862
                                               23258
                           23256
                                     23257
                 23255
                                                          23259
                                                                    23260
                                                                              23261
## Cluster 1 0.5066658 0.4978899 0.4769828 0.4529947 0.4538859 0.4728966 0.4742175
## Cluster 2 0.2417801 0.2358299 0.2442551 0.3004428 0.2341672 0.2300264 0.2512023
## Cluster 3 0.4934411 0.4866553 0.4862582 0.4719929 0.5186695 0.5337986 0.5535702
## Cluster 4 0.4337473 0.4584332 0.3935343 0.3480036 0.3824007 0.4247401 0.4007509
## Cluster 5 0.4072586 0.3625905 0.3464741 0.3469052 0.3794612 0.3965216 0.3393534
                 23262
                           23263
                                     23264
                                               23265
                                                          23266
                                                                              23268
                                                                    23267
## Cluster 1 0.4531711 0.4367851 0.4631631 0.4825186 0.5566857 0.7006910 0.8798886
## Cluster 2 0.2462405 0.2428827 0.2580528 0.2999003 0.3453079 0.3737566 0.4701848
## Cluster 3 0.5532057 0.5704411 0.5956894 0.6419021 0.7366227 0.8038326 0.9316355
## Cluster 4 0.4241769 0.4114621 0.4114910 0.5146390 0.5309711 0.5951444 0.7695523
## Cluster 5 0.3283793 0.2921810 0.3481466 0.3723362 0.3755388 0.4260733 0.5339569
##
                 23269
                           23270
                                     23271
                                               23272
                                                          23273
                                                                    23274
                                                                              23275
## Cluster 1 1.1609430 1.2403979 1.2014416 1.0848621 1.0672321 1.0067772 0.9507308
## Cluster 2 0.6730587 0.8883578 1.0116422 1.0866833 1.1058856 1.1636070 1.1608270
## Cluster 3 1.0220723 1.0752000 1.0369745 0.9630809 0.9602284 0.9807220 0.9754567
## Cluster 4 0.9225018 0.9405199 0.8724838 0.8317942 0.8014079 0.7720469 0.7759711
## Cluster 5 0.6107629 0.7189310 0.8827500 0.8502371 0.8084698 0.7542629 0.7787155
##
                 23276
                           23277
                                     23278
                                               23279
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                                                                    23281
                                                                              23282
```

```
## Cluster 1 0.9297294 0.8886340 0.7882546 0.7137294 0.5985371 0.4938462 0.3761658
## Cluster 2 1.0589531 1.0175308 0.9491848 0.9096422 0.7457331 0.5832874 0.4265689
## Cluster 3 0.9263376 0.8922525 0.8206723 0.8113418 0.7103149 0.6551163 0.5685532
## Cluster 4 0.7744765 0.7158159 0.6828736 0.5686534 0.4839675 0.4394946 0.3529025
## Cluster 5 0.7574095 0.7264526 0.7466121 0.7565819 0.7627026 0.7713922 0.6978103
                                               23286
                                                          23287
##
                 23283
                           23284
                                     23285
                                                                    23288
## Cluster 1 0.2960000 0.2290464 0.1894085 0.1787546 0.1629828 0.1551220 0.1512653
## Cluster 2 0.3499795 0.2686569 0.2353812 0.1800909 0.1691026 0.1573021 0.1522698
## Cluster 3 0.4418908 0.3455390 0.2822894 0.2444482 0.2251191 0.2181518 0.2092652
## Cluster 4 0.3028989 0.2819134 0.2675379 0.2543141 0.2269783 0.2307184 0.2453032
  Cluster 5 0.5423793 0.5263017 0.4329138 0.3805690 0.3685733 0.2716207 0.2801940
                           23291
                                     23292
                                               23293
                 23290
                                                          23294
                                                                    23295
                                                                              23296
## Cluster 1 0.1495186 0.1564443 0.1561844 0.1645531 0.1781432 0.2051406 0.2585968
## Cluster 2 0.1499531 0.1452346 0.1469413 0.1627419 0.1744780 0.2386979 0.3382991
## Cluster 3 0.1998000 0.1960809 0.1974993 0.2030979 0.2154241 0.2271149 0.2672936
## Cluster 4 0.2431516 0.2428159 0.2643791 0.2865812 0.3596137 0.4701444 0.5994368
## Cluster 5 0.2703017 0.2633491 0.2203707 0.2514310 0.2576767 0.2733233 0.2791595
##
                 23297
                           23298
                                     23299
                                               23300
                                                          23301
                                                                    23302
                                                                              23303
## Cluster 1 0.4074019 0.5917056 0.5964828 0.5232387 0.5053660 0.5143687 0.5237374
## Cluster 2 0.4976012 0.5670557 0.4999208 0.3697507 0.2988768 0.2615161 0.2593431
## Cluster 3 0.3493418 0.4478766 0.4921518 0.4931574 0.4676780 0.4334355 0.4544496
## Cluster 4 0.7854693 0.9482419 0.7160289 0.5379639 0.4374477 0.4565632 0.4846679
## Cluster 5 0.3472888 0.4540905 0.4381638 0.3776940 0.3343233 0.3601897 0.3344655
                 23304
                           23305
                                     23306
                                               23307
                                                          23308
                                                                    23309
## Cluster 1 0.4803727 0.4596379 0.4543462 0.4591127 0.4570597 0.4988316 0.4877016
## Cluster 2 0.2654780 0.2523695 0.2536012 0.2671701 0.2797478 0.3001114 0.2681877
## Cluster 3 0.4777943 0.4895319 0.4938723 0.5104922 0.5550184 0.5660142 0.5339262
## Cluster 4 0.4471047 0.4442960 0.3803718 0.4066498 0.4372166 0.4319711 0.4278520
## Cluster 5 0.3250086 0.3408707 0.3318362 0.3480216 0.3479138 0.3726164 0.3555216
##
                 23311
                           23312
                                     23313
                                               23314
                                                          23315
                                                                    23316
                                                                              23317
## Cluster 1 0.4515053 0.4928594 0.5474615 0.5982759 0.7052122 0.8670703 1.1175318
## Cluster 2 0.2860059 0.2802199 0.2965103 0.3158563 0.3996188 0.4919531 0.6553783
## Cluster 3 0.5651475 0.5955163 0.6453092 0.7141376 0.8054567 0.9317163 1.0110099
## Cluster 4 0.4427653 0.4843791 0.4827870 0.5392166 0.6428953 0.7784657 0.9866101
  Cluster 5 0.3778103 0.3968233 0.4041250 0.4038966 0.4354353 0.5247888 0.6591897
                                     23320
                                                          23322
                 23318
                           23319
                                               23321
                                                                    23323
                                                                              23324
## Cluster 1 1.2560371 1.1421074 1.0718355 1.0467546 1.0080809 0.9683727 0.9361592
## Cluster 2 0.8243196 0.9546276 1.0957478 1.0814575 1.0383783 1.0601496 0.9725748
## Cluster 3 1.0249787 1.0556582 0.9827362 0.9954213 0.9352865 0.9328071 0.8979631
## Cluster 4 0.9705776 0.8969603 0.8425812 0.7926354 0.8135596 0.7357726 0.7050903
## Cluster 5 0.7504828 0.7730819 0.8280776 0.8392198 0.7944440 0.7450474 0.7337974
                           23326
                                     23327
                                               23328
                                                          23329
                 23325
                                                                    23330
                                                                              23331
## Cluster 1 0.8776286 0.7959642 0.7061061 0.5781578 0.4782175 0.3726698 0.2931830
## Cluster 2 0.9784927 0.9161496 0.8448798 0.7012493 0.5872317 0.4245806 0.3418475
## Cluster 3 0.8955560 0.8463589 0.7767702 0.7258113 0.6325035 0.5370709 0.4378113
## Cluster 4 0.6936895 0.6384549 0.5378664 0.4695090 0.4332202 0.3869603 0.3340939
## Cluster 5 0.7423491 0.8086250 0.7568233 0.7562716 0.7963276 0.7133147 0.5881293
                                     23334
                                                          23336
##
                 23332
                           23333
                                               23335
                                                                    23337
                                                                              23338
## Cluster 1 0.2439032 0.2024191 0.1748992 0.1698515 0.1649509 0.1598011 0.1527149
## Cluster 2 0.2728094 0.1993314 0.1683666 0.1588152 0.1540088 0.1523812 0.1416950
## Cluster 3 0.3370468 0.2745773 0.2486667 0.2291574 0.2182326 0.1997248 0.2029504
## Cluster 4 0.3110144 0.2762166 0.2371011 0.2146209 0.2267762 0.2417942 0.2637292
## Cluster 5 0.4663534 0.4334224 0.3818276 0.3442414 0.2867241 0.2766595 0.2747759
##
                 23339
                           23340
                                     23341
                                               23342
                                                          23343
                                                                    23344
                                                                              23345
```

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## Cluster 1 0.1614045 0.1644947 0.1677931 0.1806844 0.1899602 0.2429218 0.4204708
## Cluster 2 0.1478768 0.1594252 0.1623783 0.1718270 0.2457507 0.3206862 0.4237683
## Cluster 3 0.1960326 0.1968950 0.2090865 0.2123092 0.2472681 0.2664000 0.3562057
## Cluster 4 0.2552599 0.2755307 0.3177256 0.3850000 0.3959422 0.5882960 0.7054404
## Cluster 5 0.2456638 0.2239181 0.2399052 0.2426724 0.2417845 0.2684698 0.3918578
                 23346
                           23347
                                               23349
                                                          23350
                                                                    23351
##
                                     23348
                                                                              23352
## Cluster 1 0.5674443 0.5767798 0.5422082 0.5135570 0.4935066 0.4955570 0.4767812
## Cluster 2 0.4922874 0.4523783 0.3898710 0.3244868 0.3192727 0.3145249 0.2844633
## Cluster 3 0.4152681 0.4762255 0.4847546 0.5041872 0.4844312 0.4967149 0.4552298
## Cluster 4 0.8734765 0.7396173 0.6331625 0.4939928 0.4423899 0.3884007 0.4028700
  Cluster 5 0.4566034 0.4626638 0.3799569 0.3563147 0.3453103 0.3810647 0.3372759
                                     23355
                                               23356
                 23353
                           23354
                                                          23357
                                                                    23358
                                                                              23359
## Cluster 1 0.4430080 0.4374430 0.4333342 0.4660981 0.4795942 0.4414337 0.4351393
## Cluster 2 0.2892727 0.2777859 0.3006100 0.3136364 0.3037889 0.2814751 0.2732903
## Cluster 3 0.4856936 0.4766667 0.5039050 0.5089376 0.5674823 0.5424865 0.5353078
## Cluster 4 0.4436715 0.3577690 0.3754585 0.4168556 0.4249892 0.3926354 0.4248917
## Cluster 5 0.3612586 0.3525043 0.3471293 0.3778362 0.3574784 0.3430302 0.3392672
##
                 23360
                           23361
                                     23362
                                               23363
                                                          23364
                                                                    23365
                                                                              23366
## Cluster 1 0.4566207 0.5031154 0.5697003 0.6427759 0.8121286 1.0611645 1.1776127
## Cluster 2 0.2499150 0.2878974 0.3662317 0.4374633 0.5699883 0.6738358 0.8699326
## Cluster 3 0.5848085 0.5893759 0.6191163 0.7202170 0.8609957 0.9158780 0.9795773
## Cluster 4 0.4202058 0.5136643 0.5568231 0.5744368 0.6945523 0.8750758 0.8457653
## Cluster 5 0.3381681 0.3368578 0.3745216 0.4202543 0.4829871 0.6169397 0.7488060
                 23367
                           23368
                                     23369
                                               23370
                                                          23371
                                                                    23372
## Cluster 1 1.1530849 1.0392056 1.0196260 0.9679775 0.8867268 0.8567599 0.8446061
## Cluster 2 0.9944780 1.0307654 1.0566481 1.0914164 0.9865630 0.9830645 0.9366510
## Cluster 3 1.0505220 1.0095234 0.9678340 0.9348894 0.8507305 0.8364582 0.8516794
## Cluster 4 0.9058700 0.8066318 0.8194477 0.7941877 0.7297978 0.7200072 0.6747978
## Cluster 5 0.8241853 0.7938966 0.8440043 0.7478836 0.7421293 0.7507888 0.8165776
##
                 23374
                           23375
                                     23376
                                               23377
                                                          23378
                                                                    23379
                                                                              23380
## Cluster 1 0.7703793 0.6993714 0.6239111 0.5433488 0.5054695 0.3656950 0.2844788
## Cluster 2 0.9366305 0.8245572 0.7309443 0.6632463 0.5722669 0.4347859 0.3345044
## Cluster 3 0.8254014 0.7789433 0.7258794 0.6613433 0.6144695 0.5297702 0.4410894
## Cluster 4 0.6658989 0.6083394 0.5296101 0.4658231 0.4205848 0.3715957 0.2880397
## Cluster 5 0.8045862 0.8054095 0.7174267 0.7473534 0.7850862 0.6867241 0.5963147
                           23382
                                     23383
                                               23384
                                                          23385
                 23381
                                                                    23386
                                                                              23387
## Cluster 1 0.2520902 0.1968355 0.1730345 0.1706645 0.1691578 0.1595902 0.1618130
## Cluster 2 0.2590411 0.2126012 0.2059413 0.1791378 0.1660264 0.1552727 0.1501378
## Cluster 3 0.3815929 0.3143957 0.2671206 0.2419674 0.2159957 0.2111106 0.2097064
## Cluster 4 0.2826029 0.2541841 0.2291083 0.2272635 0.2578917 0.2630397 0.2507762
## Cluster 5 0.5296983 0.4441940 0.3578534 0.3155905 0.3101336 0.3028060 0.2755129
                 23388
                           23389
                                     23390
                                               23391
                                                          23392
                                                                    23393
                                                                              23394
## Cluster 1 0.1653289 0.1666485 0.1710690 0.1791074 0.1824973 0.2399045 0.3272666
## Cluster 2 0.1536598 0.1607713 0.1739619 0.1955103 0.1901965 0.2397038 0.3352874
## Cluster 3 0.2004837 0.2030454 0.2041362 0.2037915 0.2316128 0.2412454 0.2671433
## Cluster 4 0.2408303 0.2705271 0.2991480 0.3368809 0.3712238 0.4277942 0.5561625
## Cluster 5 0.2563405 0.2648922 0.2550216 0.2574052 0.2608836 0.3066121 0.3396940
                 23395
                           23396
                                     23397
                                               23398
                                                          23399
##
                                                                    23400
                                                                              23401
## Cluster 1 0.4081963 0.5141883 0.6371300 0.6774682 0.7015729 0.7482387 0.7352228
## Cluster 2 0.3727155 0.4038974 0.3997185 0.4771525 0.5152053 0.5872639 0.5193284
## Cluster 3 0.3393305 0.3601390 0.4583135 0.5420113 0.5426567 0.6492908 0.6659121
## Cluster 4 0.5606065 0.6970144 0.7544440 0.6960758 0.5654477 0.5428303 0.6012058
## Cluster 5 0.3245560 0.3460603 0.3785086 0.3948405 0.4718405 0.4326078 0.4644181
##
                 23402
                           23403
                                     23404
                                               23405
                                                          23406
                                                                    23407
                                                                              23408
```

```
## Cluster 1 0.7525968 0.7067745 0.7160199 0.6895544 0.7047467 0.6806844 0.6523289
## Cluster 2 0.5362639 0.5404311 0.5950000 0.6292698 0.5638592 0.5392551 0.5648152
## Cluster 3 0.6683021 0.7238738 0.7736794 0.7803021 0.7405362 0.7351362 0.7032000
## Cluster 4 0.6236209 0.5933935 0.5488267 0.5803105 0.6097184 0.5772996 0.5920614
## Cluster 5 0.5040560 0.5025690 0.4982500 0.5314526 0.5761466 0.5805690 0.5119138
                 23409
                                               23412
                                                          23413
##
                           23410
                                     23411
                                                                    23414
## Cluster 1 0.6742149 0.7692082 0.8674708 0.9577003 1.1826950 1.2697467 1.1919549
## Cluster 2 0.5542023 0.5500411 0.6064663 0.7382082 0.8449355 1.0388944 1.1139032
## Cluster 3 0.7387844 0.7694950 0.8053277 0.9063206 1.0447234 1.1183106 1.0613447
## Cluster 4 0.5926354 0.6013610 0.7024477 0.8328953 0.9401877 0.9855054 0.9120975
  Cluster 5 0.5057155 0.5070647 0.5318491 0.6264052 0.7098448 0.8353060 0.8046552
                                               23419
                 23416
                           23417
                                     23418
                                                          23420
                                                                    23421
                                                                              23422
## Cluster 1 1.0836114 1.0210424 0.9726830 0.9082507 0.8202679 0.7584629 0.7367241
## Cluster 2 1.1108563 1.0900850 1.0883871 0.9860938 0.8545777 0.8611994 0.7587449
## Cluster 3 0.9885972 0.9884128 0.9410496 0.8746865 0.8736184 0.8107702 0.8128199
## Cluster 4 0.8827798 0.8313249 0.8433755 0.7202888 0.6749097 0.6628087 0.5793069
## Cluster 5 0.8638750 0.8122284 0.7860000 0.7806853 0.7010991 0.7243534 0.6781207
##
                 23423
                           23424
                                     23425
                                               23426
                                                          23427
                                                                    23428
                                                                              23429
## Cluster 1 0.6771114 0.6163475 0.5613011 0.4644045 0.3767162 0.3075053 0.2562997
## Cluster 2 0.7085953 0.6807067 0.5783431 0.5087449 0.4259883 0.3388768 0.2782170
## Cluster 3 0.7869504 0.7389078 0.7116709 0.5936057 0.5255305 0.4363730 0.3850099
## Cluster 4 0.5404765 0.5275596 0.4548484 0.3777762 0.3307112 0.2885560 0.3102744
## Cluster 5 0.6655086 0.6590776 0.7690905 0.7292371 0.5909784 0.5436466 0.4796552
                 23430
                           23431
                                     23432
                                               23433
                                                          23434
## Cluster 1 0.2194615 0.1962692 0.1849098 0.1716777 0.1616419 0.1636273 0.1630875
## Cluster 2 0.2427214 0.2153196 0.1975073 0.1815425 0.1726833 0.1663284 0.1702786
## Cluster 3 0.3446355 0.2995362 0.2729135 0.2530326 0.2309348 0.2208851 0.2100227
## Cluster 4 0.2672527 0.2599531 0.2640578 0.2679819 0.2671913 0.2482888 0.2512635
## Cluster 5 0.4086810 0.3958448 0.3476552 0.3181034 0.2979483 0.2780560 0.2572543
##
                 23437
                           23438
                                     23439
                                               23440
                                                          23441
                                                                    23442
                                                                              23443
## Cluster 1 0.1693077 0.1655464 0.1738342 0.1882560 0.2096353 0.2685517 0.3277931
## Cluster 2 0.1615367 0.1647918 0.1697478 0.1815308 0.1977977 0.2274839 0.2665337
## Cluster 3 0.2098085 0.2052426 0.2063206 0.2355149 0.2292837 0.2537645 0.3029149
## Cluster 4 0.2693971 0.3136606 0.3210722 0.3164224 0.3198628 0.4242708 0.5119711
  Cluster 5 0.2609397 0.2499526 0.2581422 0.2389526 0.2791638 0.2796336 0.3124397
                                     23446
                                               23447
                                                          23448
                 23444
                           23445
                                                                    23449
                                                                              23450
## Cluster 1 0.4444801 0.5651379 0.7001207 0.7029854 0.7665239 0.8094629 0.7917931
## Cluster 2 0.3038563 0.3688035 0.4736393 0.5141408 0.5708475 0.6321672 0.5764663
## Cluster 3 0.3742142 0.4850255 0.5338865 0.6314128 0.6602213 0.7100908 0.7380596
## Cluster 4 0.5348448 0.6299567 0.6743285 0.6368448 0.5860289 0.6013718 0.6738448
## Cluster 5 0.3651509 0.3823621 0.4310560 0.4292198 0.4152759 0.4678017 0.4956983
                 23451
                           23452
                                     23453
                                               23454
                                                          23455
                                                                    23456
                                                                              23457
## Cluster 1 0.8646034 0.9194019 0.8926684 0.8451432 0.7586260 0.7011074 0.7218475
## Cluster 2 0.5739795 0.6097449 0.6159443 0.5380557 0.5213050 0.4952493 0.5155894
## Cluster 3 0.7760284 0.8314879 0.8767390 0.8571333 0.8593504 0.7905475 0.8498057
## Cluster 4 0.6994079 0.6587978 0.5989097 0.5784260 0.6060397 0.6062708 0.5627870
## Cluster 5 0.4897629 0.5478578 0.5445560 0.4747802 0.4497629 0.4705776 0.5620948
                                                          23462
##
                 23458
                           23459
                                     23460
                                               23461
                                                                    23463
                                                                              23464
## Cluster 1 0.6992493 0.7335040 0.9120305 1.0649098 1.1347188 1.0764191 1.0279058
## Cluster 2 0.5377155 0.5650587 0.6373988 0.8615543 0.9875660 1.1034164 1.1326804
## Cluster 3 0.8139206 0.8240610 0.8892468 0.9576383 1.0386979 1.0014028 1.0263972
## Cluster 4 0.6124946 0.6526029 0.8086137 0.9283321 0.9377617 0.8741227 0.8440361
## Cluster 5 0.5894138 0.5697888 0.5905560 0.6986509 0.8233491 0.8371207 0.8290776
##
                 23465
                           23466
                                     23467
                                               23468
                                                          23469
                                                                    23470
                                                                              23471
```

```
## Cluster 1 1.0220650 0.9801008 0.9035716 0.8577653 0.8720451 0.7732798 0.7077520
## Cluster 2 1.0119150 1.0120499 1.0056452 0.9648915 0.9684223 0.9265103 0.8772258
## Cluster 3 1.0004695 0.9826326 0.9442255 0.9207730 0.9188184 0.8470298 0.8012894
## Cluster 4 0.8169639 0.7613863 0.7116173 0.6795812 0.7115451 0.6082274 0.5346715
## Cluster 5 0.8338879 0.8322629 0.8872543 0.8525733 0.8410000 0.8396595 0.7573017
                                                          23476
##
                 23472
                           23473
                                     23474
                                               23475
                                                                    23477
                                                                              23478
## Cluster 1 0.5779920 0.4823979 0.3639469 0.2784973 0.2230557 0.1818263 0.1600093
## Cluster 2 0.7337214 0.5897801 0.4425044 0.3256012 0.2555748 0.2054780 0.1807038
## Cluster 3 0.7570794 0.6874979 0.5678426 0.4541589 0.3654894 0.3043177 0.2659773
## Cluster 4 0.4920650 0.4565740 0.3692924 0.3330144 0.2773249 0.2665415 0.2483321
  Cluster 5 0.7397328 0.7784957 0.7394353 0.6619138 0.5663922 0.4801466 0.3818190
                 23479
                           23480
                                     23481
                                               23482
                                                          23483
                                                                    23484
                                                                              23485
## Cluster 1 0.1580000 0.1582454 0.1592334 0.1496883 0.1511326 0.1598156 0.1683780
## Cluster 2 0.1735953 0.1552287 0.1458328 0.1494106 0.1480880 0.1415249 0.1608299
## Cluster 3 0.2334979 0.2265986 0.2108482 0.2079050 0.1991816 0.1912652 0.2064482
## Cluster 4 0.2418700 0.2426029 0.2522383 0.2772347 0.2786029 0.2806426 0.3144296
## Cluster 5 0.3609095 0.3187845 0.2875776 0.2831940 0.2911509 0.2688534 0.2935733
##
                 23486
                           23487
                                     23488
                                               23489
                                                          23490
                                                                    23491
                                                                              23492
## Cluster 1 0.1663634 0.1826552 0.2409775 0.4087732 0.5877533 0.5774523 0.5460875
## Cluster 2 0.1874545 0.2789912 0.3659560 0.4754692 0.5481085 0.5047067 0.3869091
## Cluster 3 0.2219135 0.2397801 0.2782369 0.3464213 0.4409220 0.5109248 0.5005504
## Cluster 4 0.3450614 0.4029964 0.5618989 0.8016282 0.8433249 0.7488159 0.5938267
## Cluster 5 0.2840991 0.3094009 0.3491853 0.4358491 0.5188707 0.5292888 0.4552155
                 23493
                           23494
                                     23495
                                               23496
                                                          23497
## Cluster 1 0.5525438 0.5487639 0.5185623 0.4876698 0.4784443 0.4730517 0.5029973
## Cluster 2 0.3250762 0.3281672 0.2662287 0.2589765 0.2462551 0.2483812 0.2330440
## Cluster 3 0.4824255 0.4914567 0.5327504 0.5130440 0.5202525 0.5629191 0.5954284
## Cluster 4 0.5008664 0.4885560 0.4666065 0.4423430 0.4134693 0.3856968 0.4155848
## Cluster 5 0.3756595 0.3942759 0.3796681 0.3525259 0.3410345 0.3510388 0.3497759
##
                 23500
                           23501
                                     23502
                                               23503
                                                          23504
                                                                    23505
                                                                              23506
## Cluster 1 0.5118674 0.5219005 0.4731446 0.4924960 0.5237467 0.5410915 0.5925584
## Cluster 2 0.3025249 0.2949531 0.2608182 0.2906070 0.3286774 0.3070029 0.3280587
## Cluster 3 0.5734752 0.5849801 0.5654199 0.5682057 0.5556397 0.5967773 0.6601915
## Cluster 4 0.4208412 0.4222455 0.4607220 0.4589314 0.4578700 0.4930253 0.5784332
  Cluster 5 0.3286250 0.3867543 0.3392457 0.3064009 0.3166724 0.3493879 0.4014741
                           23508
                                     23509
                                               23510
                                                          23511
                 23507
                                                                    23512
                                                                              23513
## Cluster 1 0.7124576 0.9105889 1.1623355 1.2991220 1.2641207 1.1600915 1.0895955
## Cluster 2 0.4051026 0.4898065 0.7511496 0.8882962 1.0777185 1.1364164 1.1551437
## Cluster 3 0.8187986 0.9334809 1.0361660 1.0819603 1.0782213 1.0497631 1.0564723
## Cluster 4 0.6783069 0.8957906 0.9590108 0.9628520 0.8614585 0.8340072 0.8575343
## Cluster 5 0.4441379 0.5708103 0.7194138 0.8036207 0.8744440 0.8788578 0.9382026
                 23514
                           23515
                                     23516
                                               23517
                                                          23518
                                                                    23519
                                                                              23520
## Cluster 1 1.0476021 0.9958302 0.9737984 0.9079973 0.8096286 0.6996910 0.6075358
## Cluster 2 1.2097361 1.1239238 1.0784780 1.1047155 0.9399150 0.9430352 0.7735425
## Cluster 3 0.9970113 0.9522752 0.9210667 0.9312454 0.8769603 0.8539986 0.7638213
## Cluster 4 0.8032924 0.7376462 0.7560072 0.6984404 0.6411480 0.6110397 0.5133285
## Cluster 5 0.8091853 0.7996853 0.8219741 0.8126638 0.8126897 0.8142543 0.7930517
                           23522
                                                          23525
##
                 23521
                                     23523
                                               23524
                                                                    23526
                                                                              23527
## Cluster 1 0.4947042 0.4063223 0.2915464 0.2180239 0.1851220 0.1650517 0.1593050
## Cluster 2 0.5785924 0.4707038 0.3257038 0.2530176 0.2050792 0.1890381 0.1549765
## Cluster 3 0.6693546 0.5788567 0.4564894 0.3754865 0.2993702 0.2565021 0.2350865
## Cluster 4 0.4529675 0.3936498 0.2994585 0.2743610 0.2607834 0.2455596 0.2538953
## Cluster 5 0.7852328 0.8181466 0.6541681 0.5668233 0.4789957 0.4128233 0.3625043
##
                 23528
                           23529
                                     23530
                                               23531
                                                          23532
                                                                    23533
                                                                              23534
```

```
## Cluster 1 0.1562971 0.1524721 0.1503568 0.1471512 0.1547772 0.1628395 0.1791976
## Cluster 2 0.1507889 0.1448915 0.1358358 0.1426188 0.1376598 0.1531202 0.1667243
## Cluster 3 0.2257574 0.2131730 0.2008440 0.1980709 0.1967461 0.2059078 0.2149560
## Cluster 4 0.2298051 0.2440000 0.2592022 0.2570253 0.2567256 0.2760144 0.3450108
## Cluster 5 0.3337069 0.2929052 0.2612155 0.2505216 0.2431681 0.2553060 0.2616422
                                               23538
                                                          23539
##
                 23535
                           23536
                                     23537
                                                                    23540
## Cluster 1 0.2082984 0.2599443 0.4380610 0.6214960 0.6362653 0.5351061 0.5486790
## Cluster 2 0.2539853 0.3738768 0.5025660 0.5012962 0.4847214 0.3577889 0.3184018
## Cluster 3 0.2435348 0.2826667 0.3773986 0.4593631 0.4745291 0.4825319 0.4870213
## Cluster 4 0.4344801 0.6073538 0.7501408 0.8817076 0.7048664 0.5730397 0.4931227
  Cluster 5 0.2804310 0.2987845 0.4033836 0.4745862 0.4776681 0.4080345 0.3768966
                           23543
                                     23544
                                               23545
                 23542
                                                          23546
                                                                    23547
                                                                              23548
## Cluster 1 0.5147507 0.5214841 0.4831698 0.4704244 0.4648926 0.4609125 0.5185252
## Cluster 2 0.2753842 0.2295073 0.2436070 0.2220147 0.2313988 0.2461496 0.2471818
## Cluster 3 0.4830270 0.4821106 0.5020596 0.4849716 0.5110766 0.5197730 0.5724752
## Cluster 4 0.4500289 0.4334224 0.3923321 0.3727401 0.4096137 0.4233069 0.4431083
## Cluster 5 0.3434052 0.3708578 0.3279612 0.3381293 0.3149784 0.3638879 0.4136983
##
                 23549
                           23550
                                     23551
                                               23552
                                                          23553
                                                                    23554
                                                                              23555
## Cluster 1 0.5362944 0.4832573 0.4777122 0.4866830 0.5654151 0.6629788 0.8268501
## Cluster 2 0.2793724 0.2803490 0.2661173 0.3056921 0.3066745 0.3402581 0.4126979
## Cluster 3 0.5936099 0.5606553 0.5475631 0.5837404 0.6430851 0.7133858 0.8600043
## Cluster 4 0.4872166 0.4556498 0.4934982 0.5105668 0.4857545 0.5384621 0.6819025
## Cluster 5 0.3714784 0.4002155 0.3929310 0.3986422 0.4305345 0.4865991 0.5037845
                 23556
                           23557
                                     23558
                                               23559
                                                          23560
                                                                    23561
## Cluster 1 1.0252069 1.2110186 1.3191910 1.2175040 1.1113594 1.0942334 1.0246233
## Cluster 2 0.5439120 0.6995543 0.9130205 1.0706950 1.1333021 1.0824194 1.1290997
## Cluster 3 1.0366213 1.0805135 1.0816667 1.0495163 0.9832312 0.9866752 0.9813262
## Cluster 4 0.8729819 0.9336606 1.0726173 0.8981119 0.8572996 0.7992780 0.7617690
## Cluster 5 0.5688879 0.6838362 0.7959871 0.8018750 0.7917586 0.8067328 0.8505948
                 23563
                           23564
                                     23565
                                               23566
                                                          23567
                                                                    23568
                                                                              23569
## Cluster 1 0.9953276 0.9491645 0.8717135 0.8088859 0.7194377 0.6035159 0.5023966
## Cluster 2 1.0925308 1.0531173 1.1091672 1.0340821 0.9095865 0.7995220 0.6494340
## Cluster 3 0.9484511 0.9372851 0.9161447 0.9096922 0.8376681 0.7199177 0.6749745
## Cluster 4 0.7695812 0.8092022 0.7360289 0.6863574 0.5904982 0.5162527 0.4610830
## Cluster 5 0.8297716 0.8322198 0.8113319 0.8926940 0.8864224 0.8307155 0.8634957
                                               23573
                           23571
                                     23572
                                                          23574
                 23570
                                                                    23575
                                                                              23576
## Cluster 1 0.4040477 0.3058422 0.2330889 0.1875729 0.1690822 0.1575663 0.1596088
## Cluster 2 0.4705543 0.3613812 0.2614575 0.2066921 0.1751584 0.1612845 0.1436745
## Cluster 3 0.5687574 0.4519404 0.3690369 0.3008270 0.2523319 0.2280567 0.2129858
## Cluster 4 0.3678014 0.3234874 0.2835957 0.2550686 0.2518484 0.2531480 0.2325668
## Cluster 5 0.7584052 0.6315948 0.5510388 0.4356293 0.4102155 0.3705474 0.3114784
                           23578
                                     23579
                                               23580
                                                          23581
                 23577
                                                                    23582
                                                                              23583
## Cluster 1 0.1577865 0.1585358 0.1589562 0.1642905 0.1696578 0.1726724 0.1921353
## Cluster 2 0.1386745 0.1434457 0.1509589 0.1438006 0.1567390 0.1769150 0.2740381
## Cluster 3 0.2038426 0.1928879 0.1918766 0.1951546 0.1996525 0.2007050 0.2434908
## Cluster 4 0.2384549 0.2618917 0.2755523 0.2816679 0.2848520 0.3350108 0.4649747
## Cluster 5 0.2629397 0.2446595 0.2517931 0.2435560 0.2455302 0.2471897 0.2800172
                           23585
                                     23586
                                                          23588
##
                 23584
                                               23587
                                                                    23589
                                                                              23590
## Cluster 1 0.2466631 0.4040133 0.6144496 0.6187905 0.5276459 0.5113515 0.5115650
## Cluster 2 0.3300704 0.4486510 0.5512551 0.4855953 0.3892845 0.2690762 0.2365308
## Cluster 3 0.2783674 0.3734227 0.4377220 0.4920312 0.4711376 0.4726426 0.4714057
## Cluster 4 0.5794585 0.7700542 0.8298592 0.7821011 0.5898339 0.5453213 0.4987256
## Cluster 5 0.3040345 0.3954612 0.4101595 0.5053190 0.4809914 0.3517069 0.2954655
##
                 23591
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                                                                    23596
                                                                              23597
```

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## Cluster 1 0.4903422 0.4767334 0.4606300 0.4389907 0.4569204 0.4957533 0.5066353
## Cluster 2 0.2273196 0.2426188 0.2379941 0.2363079 0.2267537 0.2237331 0.2782639
## Cluster 3 0.4647121 0.4555092 0.4703149 0.4378270 0.4697149 0.5152766 0.5266851
## Cluster 4 0.4986931 0.4000650 0.3985379 0.4031949 0.3540505 0.4170650 0.4359783
## Cluster 5 0.3188879 0.3204224 0.3153966 0.3432888 0.3500388 0.3541164 0.3329526
                 23598
                           23599
                                     23600
                                               23601
                                                          23602
                                                                    23603
##
                                                                              23604
## Cluster 1 0.4741233 0.4627440 0.4680146 0.5282706 0.5794164 0.7634045 0.9819019
## Cluster 2 0.2679589 0.2472111 0.3295279 0.2961701 0.3228240 0.3909707 0.5141290
## Cluster 3 0.5130681 0.5243688 0.6005773 0.6201291 0.6929887 0.7931957 0.9282298
## Cluster 4 0.4339603 0.4160144 0.4254693 0.4799964 0.5258664 0.6257798 0.7807581
  Cluster 5 0.3411293 0.3452112 0.3849914 0.3858190 0.4260948 0.4824397 0.5982845
                           23606
                                     23607
                                               23608
                 23605
                                                          23609
                                                                    23610
                                                                              23611
## Cluster 1 1.1601167 1.2536379 1.2014138 1.0589257 1.1099735 1.0294045 0.9918050
## Cluster 2 0.7231584 0.8131994 0.9589971 1.0334311 1.1301085 1.1139795 1.0832317
## Cluster 3 1.0361844 1.0169972 1.0103887 0.9941504 1.0011759 0.9870227 0.9711106
## Cluster 4 0.8792671 0.9638195 0.8730758 0.8744116 0.8281408 0.8344693 0.7801083
## Cluster 5 0.7114569 0.7706293 0.8119009 0.8181767 0.7913233 0.7906078 0.7575043
##
                 23612
                           23613
                                     23614
                                               23615
                                                          23616
                                                                    23617
                                                                              23618
## Cluster 1 0.9267029 0.8739045 0.7490743 0.6613156 0.5799072 0.5046260 0.3876658
## Cluster 2 1.0482991 1.0314516 0.9539267 0.8543079 0.7532434 0.6246628 0.4638592
## Cluster 3 0.9080340 0.8951504 0.8365262 0.7935801 0.7165163 0.6591277 0.5588170
## Cluster 4 0.7420722 0.6920722 0.6448195 0.6013971 0.5420144 0.4677978 0.3535776
## Cluster 5 0.7373879 0.7179784 0.7236034 0.7693534 0.7425086 0.8456638 0.7807888
                 23619
                           23620
                                     23621
                                               23622
                                                          23623
## Cluster 1 0.2914854 0.2334920 0.1977480 0.1745928 0.1658156 0.1635875 0.1574390
## Cluster 2 0.3527155 0.2759677 0.2049296 0.1609267 0.1531437 0.1465924 0.1512551
## Cluster 3 0.4638227 0.3461390 0.2901404 0.2469362 0.2238596 0.2166908 0.2030454
## Cluster 4 0.3168917 0.2767978 0.2483610 0.2223863 0.2192852 0.2388556 0.2443538
## Cluster 5 0.6089483 0.4795302 0.4190603 0.3555560 0.2882457 0.2707457 0.2556595
##
                 23626
                           23627
                                     23628
                                               23629
                                                          23630
                                                                    23631
                                                                              23632
## Cluster 1 0.1557944 0.1587719 0.1619655 0.1777042 0.1775809 0.2086393 0.2621737
## Cluster 2 0.1445484 0.1516540 0.1476305 0.1576950 0.1830235 0.2485103 0.3064282
## Cluster 3 0.1952851 0.1958340 0.1988057 0.2044624 0.2184142 0.2460738 0.2760766
## Cluster 4 0.2576570 0.2441913 0.2623502 0.2939025 0.3402347 0.3952310 0.5717653
## Cluster 5 0.2435431 0.2340647 0.2278147 0.2151897 0.2324828 0.2578362 0.3242414
                                     23635
                                               23636
                                                          23637
                 23633
                           23634
                                                                    23638
                                                                              23639
## Cluster 1 0.4279363 0.6239310 0.6163912 0.5199841 0.4924483 0.4966777 0.4604390
## Cluster 2 0.4752405 0.5395132 0.5287859 0.4201789 0.3539560 0.2914663 0.2690235
## Cluster 3 0.3657688 0.4346270 0.4769220 0.4881532 0.4620000 0.4315220 0.4028156
## Cluster 4 0.7354946 0.8365848 0.7099097 0.6233177 0.5085199 0.4898809 0.4132708
## Cluster 5 0.3745690 0.5017414 0.4463922 0.4142112 0.3643966 0.3280474 0.3546078
                 23640
                           23641
                                     23642
                                               23643
                                                          23644
                                                                    23645
                                                                              23646
## Cluster 1 0.4606963 0.4369668 0.4378634 0.4385743 0.4770146 0.4793037 0.4616605
## Cluster 2 0.2689120 0.2487126 0.3008680 0.2883284 0.3012229 0.3027595 0.2749824
## Cluster 3 0.4557518 0.4710638 0.4464908 0.4885716 0.5310780 0.5573929 0.5421901
## Cluster 4 0.4440722 0.4053827 0.4214404 0.4412094 0.3940253 0.3929278 0.4226859
## Cluster 5 0.3388922 0.3384181 0.3160862 0.3416336 0.3290647 0.3552629 0.3234224
                           23648
                                               23650
                                                          23651
##
                 23647
                                     23649
                                                                    23652
                                                                              23653
## Cluster 1 0.4856326 0.4864695 0.5192944 0.5592918 0.6540080 0.8765928 1.0741817
## Cluster 2 0.2412463 0.2615601 0.2781202 0.3009941 0.3423490 0.4672698 0.6927801
## Cluster 3 0.5636837 0.5611929 0.6012624 0.6595348 0.7604723 0.9409801 0.9943121
## Cluster 4 0.4151986 0.4196570 0.4518664 0.5633069 0.6503213 0.7936606 0.8951733
## Cluster 5 0.3110474 0.3260862 0.3126853 0.3167931 0.3712629 0.4562198 0.5875172
##
                 23654
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                                                                    23659
                                                                              23660
```

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## Cluster 1 1.2649284 1.1786870 1.0937745 1.0705663 0.9556897 0.9433806 0.8912653
## Cluster 2 0.8711026 1.0229267 1.0363226 1.0894164 1.0788563 1.0338299 1.0136305
## Cluster 3 1.0554397 1.0345376 0.9758667 0.9906071 0.9574369 0.9310312 0.9267149
## Cluster 4 0.9275126 0.9214910 0.9241408 0.8158809 0.7909061 0.7351408 0.7160975
## Cluster 5 0.7196853 0.7395603 0.7343103 0.7805000 0.7832371 0.7152026 0.7284224
                 23661
                                     23663
                                                          23665
##
                           23662
                                               23664
                                                                    23666
                                                                              23667
## Cluster 1 0.8798050 0.7844536 0.6963475 0.6134947 0.5124072 0.3947812 0.2962255
## Cluster 2 0.9772903 0.9302258 0.8297067 0.7336716 0.6137214 0.4614399 0.3409824
## Cluster 3 0.8890794 0.8646199 0.8208922 0.7637305 0.6979234 0.6101362 0.4880482
## Cluster 4 0.7182816 0.6506895 0.5614116 0.4752310 0.4194440 0.3890614 0.3315235
  Cluster 5 0.7815172 0.8243621 0.8444224 0.8041250 0.7895690 0.7246810 0.6208448
                                     23670
                                               23671
                 23668
                           23669
                                                          23672
                                                                    23673
                                                                              23674
## Cluster 1 0.2301804 0.1983899 0.1748700 0.1645212 0.1587679 0.1552971 0.1499138
## Cluster 2 0.2598974 0.1955982 0.1784516 0.1654663 0.1524809 0.1536041 0.1530469
## Cluster 3 0.3891035 0.3030936 0.2584227 0.2364894 0.2227163 0.2088340 0.2023333
## Cluster 4 0.2815848 0.2577870 0.2674188 0.2466787 0.2392563 0.2390975 0.2577509
## Cluster 5 0.5174957 0.4792716 0.3688534 0.3498879 0.2866207 0.2560517 0.2420388
##
                 23675
                           23676
                                     23677
                                               23678
                                                          23679
                                                                    23680
                                                                              23681
## Cluster 1 0.1562255 0.1619973 0.1700119 0.1822162 0.1961154 0.2528355 0.4147918
## Cluster 2 0.1635748 0.1525601 0.1647009 0.1819062 0.2486628 0.3110938 0.4689384
## Cluster 3 0.2012170 0.2082482 0.2091957 0.2084071 0.2344170 0.2694596 0.3542596
## Cluster 4 0.2702708 0.2745054 0.3020036 0.3470181 0.3777365 0.5868448 0.7628087
## Cluster 5 0.2355819 0.2267414 0.2190431 0.2370000 0.2536078 0.3208879 0.4168578
                 23682
                           23683
                                     23684
                                               23685
                                                          23686
                                                                    23687
## Cluster 1 0.5840332 0.6079483 0.5534576 0.5232029 0.5368249 0.4816605 0.4538488
## Cluster 2 0.4898915 0.5081408 0.3963988 0.3215132 0.3260381 0.3456452 0.3356364
## Cluster 3 0.4338298 0.4870184 0.4571177 0.4236993 0.4538922 0.5012610 0.4652284
## Cluster 4 0.8260397 0.8151191 0.5883032 0.5034513 0.4647834 0.4541372 0.4145812
## Cluster 5 0.4617802 0.4469440 0.4048276 0.3736509 0.3647759 0.3980043 0.3516897
##
                 23689
                           23690
                                     23691
                                               23692
                                                          23693
                                                                    23694
                                                                              23695
## Cluster 1 0.4287812 0.4620729 0.4493210 0.4667029 0.4834284 0.4598886 0.4467162
## Cluster 2 0.2635836 0.2889413 0.2788240 0.2940235 0.3219032 0.2780235 0.2599501
## Cluster 3 0.4778241 0.4723305 0.4892085 0.4981702 0.5301702 0.5117730 0.5148241
## Cluster 4 0.4631588 0.4013032 0.4155090 0.4211480 0.4617292 0.4320758 0.4462780
  Cluster 5 0.3911767 0.3753276 0.3393621 0.3868491 0.3476293 0.3632155 0.3387974
                                     23698
                                               23699
                                                          23700
                 23696
                           23697
                                                                    23701
                                                                              23702
## Cluster 1 0.4631764 0.4942812 0.5521286 0.7222135 0.8911777 1.1084881 1.1493501
## Cluster 2 0.2582346 0.2879883 0.3183519 0.4041408 0.5508710 0.6735425 0.8191202
## Cluster 3 0.5217872 0.6042539 0.6525574 0.7777433 0.9150241 0.9913901 1.0562936
## Cluster 4 0.4444224 0.4442022 0.5845162 0.6923827 0.7736318 0.8530181 0.7962635
## Cluster 5 0.3345216 0.3418405 0.3690172 0.4582457 0.6159009 0.6565388 0.7070216
                 23703
                           23704
                                     23705
                                               23706
                                                          23707
                                                                              23709
                                                                    23708
## Cluster 1 1.1084058 1.0402361 0.9937838 0.9325093 0.9168183 0.8510239 0.8423952
## Cluster 2 0.8999032 0.9881935 1.0159326 0.9826041 1.0475660 0.9653783 0.9245015
## Cluster 3 1.0332199 1.0068199 0.9927348 0.9439035 0.9269801 0.9174922 0.8865816
## Cluster 4 0.7518736 0.7540830 0.7129097 0.7303357 0.7209783 0.6395957 0.6355162
## Cluster 5 0.7138664 0.7499612 0.8361379 0.8419698 0.7998750 0.7978922 0.7885259
##
                 23710
                           23711
                                     23712
                                               23713
                                                          23714
                                                                    23715
                                                                              23716
## Cluster 1 0.7669947 0.7233143 0.6252971 0.5648528 0.4619284 0.3547931 0.2950822
## Cluster 2 0.8503636 0.8054311 0.7362962 0.6443402 0.5108123 0.3933724 0.3052053
## Cluster 3 0.8452723 0.7989915 0.7353858 0.6800213 0.6329163 0.5445759 0.4716922
## Cluster 4 0.6347329 0.5570325 0.4803538 0.4794946 0.4230686 0.3543971 0.2988592
## Cluster 5 0.7906940 0.7522888 0.7522112 0.8005474 0.8130302 0.6862026 0.6615517
##
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```

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## Cluster 1 0.2333130 0.2117732 0.1787546 0.1669867 0.1577692 0.1570398 0.1556817
## Cluster 2 0.2564164 0.2153372 0.2038534 0.1775865 0.1597625 0.1692669 0.1693842
## Cluster 3 0.3998553 0.3298950 0.2877986 0.2588752 0.2356624 0.2192383 0.2096624
## Cluster 4 0.2519134 0.2426895 0.2732130 0.2415848 0.2515379 0.2512274 0.2526318
## Cluster 5 0.4544698 0.3932802 0.3276810 0.3102672 0.2909741 0.2850819 0.2660905
                           23725
                                                          23728
##
                 23724
                                     23726
                                               23727
                                                                    23729
                                                                              23730
## Cluster 1 0.1581764 0.1655345 0.1748077 0.1785119 0.1855279 0.2307599 0.2958488
## Cluster 2 0.1572023 0.1644545 0.1594428 0.1625513 0.2023548 0.2410880 0.3100293
## Cluster 3 0.2092837 0.2031248 0.2119461 0.2217461 0.2251816 0.2629830 0.2959773
## Cluster 4 0.2562960 0.2530144 0.2876679 0.2994368 0.3293791 0.4327473 0.5341119
  Cluster 5 0.2535862 0.2640172 0.2614784 0.2572586 0.2566810 0.2804526 0.3496164
                           23732
                                     23733
                                               23734
                 23731
                                                          23735
                                                                    23736
                                                                              23737
## Cluster 1 0.3956897 0.4818647 0.5921552 0.6521379 0.7175252 0.6706830 0.6637361
## Cluster 2 0.3261290 0.4448504 0.4933578 0.4976921 0.5406188 0.5013079 0.4839648
## Cluster 3 0.3565106 0.4280142 0.4799333 0.5492794 0.5900908 0.6394965 0.6893972
## Cluster 4 0.5982058 0.5789278 0.6012058 0.6481264 0.6122455 0.5653177 0.5477220
## Cluster 5 0.3518060 0.3697759 0.3848879 0.4391466 0.4473233 0.4259526 0.5536293
##
                 23738
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                                                                    23743
                                                                              23744
## Cluster 1 0.7103873 0.6981857 0.7263634 0.7329775 0.7310146 0.7084920 0.6826114
## Cluster 2 0.5442111 0.5300411 0.5504018 0.5859326 0.5852434 0.5374428 0.5603050
## Cluster 3 0.6922369 0.7377149 0.7986085 0.8229433 0.7696709 0.7702567 0.7422071
## Cluster 4 0.5012780 0.5562383 0.5059350 0.5804549 0.5304838 0.5949892 0.5939964
## Cluster 5 0.5492112 0.5553750 0.5585388 0.5902198 0.5479310 0.5213836 0.5218491
                 23745
                           23746
                                     23747
                                               23748
                                                          23749
                                                                    23750
## Cluster 1 0.6967440 0.7419655 0.8352241 0.9517745 1.1247798 1.1946472 1.1526008
## Cluster 2 0.5698944 0.5455367 0.6332669 0.7405630 0.9070821 0.9530293 1.0506540
## Cluster 3 0.7563504 0.8172539 0.8665929 0.9113035 1.0788525 1.0514383 1.0460028
## Cluster 4 0.5985957 0.6883141 0.7354079 0.7355596 0.9011155 0.8335235 0.7861588
## Cluster 5 0.4814440 0.5158879 0.6130517 0.6394181 0.6784440 0.7592500 0.8725302
##
                 23752
                           23753
                                     23754
                                               23755
                                                          23756
                                                                    23757
                                                                              23758
## Cluster 1 1.0573780 1.0200676 0.9754562 0.9247042 0.8314244 0.7801048 0.7743050
## Cluster 2 1.0708915 1.0042463 1.0119795 0.9623255 0.8781642 0.8369296 0.7849677
## Cluster 3 1.0041121 0.9796043 0.9535163 0.9419972 0.8697489 0.8689050 0.8407589
## Cluster 4 0.8018845 0.7716318 0.7189639 0.7096029 0.6704116 0.5861444 0.6162708
## Cluster 5 0.8663621 0.8119224 0.8969138 0.8392112 0.7426379 0.7067974 0.7310862
                           23760
                                     23761
                                               23762
                                                          23763
                 23759
                                                                    23764
                                                                              23765
## Cluster 1 0.7111525 0.6374973 0.5704549 0.4607387 0.3717520 0.3132812 0.2665531
## Cluster 2 0.7141173 0.6633842 0.5838856 0.4897830 0.4271760 0.3696393 0.3072111
## Cluster 3 0.7842922 0.7545106 0.6906979 0.6079631 0.5259390 0.4728454 0.4041915
## Cluster 4 0.5740361 0.5400361 0.5048700 0.4339422 0.3571733 0.3163538 0.2942780
## Cluster 5 0.7427414 0.7152112 0.7427026 0.7386681 0.6650388 0.5964741 0.5007888
                 23766
                           23767
                                     23768
                                               23769
                                                          23770
                                                                              23772
                                                                    23771
## Cluster 1 0.2186353 0.1991048 0.1978475 0.1819231 0.1709324 0.1663966 0.1705239
## Cluster 2 0.2720352 0.2280323 0.2095249 0.2046041 0.1789413 0.1689912 0.1711730
## Cluster 3 0.3348709 0.2889078 0.2586199 0.2475787 0.2248809 0.2144922 0.2205518
## Cluster 4 0.3029134 0.2906787 0.2635668 0.2500433 0.2687076 0.2596390 0.2455199
## Cluster 5 0.4363922 0.3903664 0.3389698 0.2982328 0.2758276 0.2638750 0.2629612
                           23774
##
                 23773
                                     23775
                                               23776
                                                          23777
                                                                    23778
                                                                              23779
## Cluster 1 0.1726300 0.1706751 0.1716512 0.1843767 0.2189576 0.2601976 0.3411021
## Cluster 2 0.1638886 0.1599648 0.1641906 0.1898798 0.2200147 0.2662375 0.2790762
## Cluster 3 0.2143121 0.2121887 0.2232270 0.2339560 0.2431574 0.2514340 0.3030270
## Cluster 4 0.2657365 0.2988809 0.3050578 0.3302924 0.3832924 0.4294765 0.4968087
## Cluster 5 0.2672155 0.2645345 0.2517759 0.2943448 0.3033879 0.3203664 0.3146121
##
                 23780
                           23781
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                                               23783
                                                          23784
                                                                    23785
                                                                              23786
```

```
## Cluster 1 0.4265027 0.5489695 0.6564536 0.6645146 0.7799509 0.7761141 0.7661790
## Cluster 2 0.3135220 0.3721466 0.4362405 0.4764721 0.5937801 0.5829912 0.5867742
## Cluster 3 0.3485348 0.3958936 0.4801858 0.6185660 0.6993404 0.6783291 0.7471972
## Cluster 4 0.5935235 0.6872563 0.6874188 0.6110722 0.6605632 0.5888700 0.6024116
## Cluster 5 0.3404224 0.3487931 0.4346466 0.4388836 0.5245388 0.5595302 0.5165948
                                     23789
                                                                    23792
##
                 23787
                           23788
                                               23790
                                                          23791
                                                                              23793
## Cluster 1 0.8402374 0.8242997 0.8695544 0.8543528 0.7289297 0.7661048 0.7651565
## Cluster 2 0.6040674 0.6177625 0.6339326 0.5633930 0.5436041 0.5660264 0.5987507
## Cluster 3 0.8035589 0.8589050 0.8883376 0.8682624 0.8503404 0.7920865 0.7748270
## Cluster 4 0.6910217 0.7924693 0.6994621 0.7043285 0.6948375 0.6551408 0.5885884
  Cluster 5 0.4958103 0.6042371 0.5990905 0.5201034 0.5235647 0.5284440 0.5359224
                 23794
                           23795
                                     23796
                                               23797
                                                          23798
                                                                    23799
                                                                              23800
## Cluster 1 0.7746485 0.7972984 0.9112122 1.0779615 1.1514682 1.1176684 1.0187268
## Cluster 2 0.5950381 0.6787273 0.7713666 0.8740557 0.9665601 1.0801320 1.0352727
## Cluster 3 0.8056610 0.8336468 0.9348312 0.9770184 0.9989348 1.0370539 0.9763362
## Cluster 4 0.6468664 0.7488592 0.7947545 0.9309892 0.9430505 0.8774585 0.8020939
## Cluster 5 0.5175086 0.5167931 0.6470388 0.6909224 0.7491552 0.8399483 0.8157500
##
                 23801
                           23802
                                     23803
                                               23804
                                                          23805
                                                                    23806
                                                                              23807
## Cluster 1 1.0402931 0.9991857 0.9013448 0.8115146 0.8384788 0.7715265 0.6784032
## Cluster 2 1.0394164 1.0442375 1.0198886 0.9364780 0.9900000 0.8867390 0.8619677
## Cluster 3 0.9354184 0.9585688 0.8828695 0.8525631 0.8919858 0.8334184 0.7858369
## Cluster 4 0.7955523 0.7777256 0.7511625 0.6822671 0.6814260 0.6750072 0.5979928
## Cluster 5 0.8113750 0.8110690 0.8022241 0.7939871 0.7924397 0.8053750 0.7807802
                 23808
                           23809
                                     23810
                                               23811
                                                          23812
                                                                    23813
## Cluster 1 0.5792268 0.4631777 0.3954111 0.3028316 0.2364032 0.1904576 0.1679987
## Cluster 2 0.7754252 0.6117801 0.4384370 0.3293724 0.2588358 0.2085220 0.1813255
## Cluster 3 0.7239660 0.6553121 0.5788184 0.4854780 0.3850454 0.2979504 0.2514539
## Cluster 4 0.5220866 0.4778195 0.4035343 0.3252166 0.2705812 0.2688484 0.2543466
## Cluster 5 0.8112802 0.8781897 0.8285862 0.6390948 0.5388664 0.4786078 0.4067974
##
                 23815
                           23816
                                     23817
                                               23818
                                                          23819
                                                                    23820
                                                                              23821
## Cluster 1 0.1614297 0.1488064 0.1492374 0.1434655 0.1518660 0.1631552 0.1756910
## Cluster 2 0.1734545 0.1482229 0.1390147 0.1453783 0.1547859 0.1493255 0.1507625
## Cluster 3 0.2327730 0.2188000 0.2140312 0.1948596 0.1932638 0.1936794 0.2007915
## Cluster 4 0.2303502 0.2205271 0.2316931 0.2556390 0.2562599 0.2367942 0.2677509
## Cluster 5 0.3468233 0.2811897 0.2767845 0.2678534 0.2715172 0.2822284 0.2650776
                                     23824
                                               23825
                                                          23826
                 23822
                           23823
                                                                    23827
                                                                              23828
## Cluster 1 0.1747122 0.1919920 0.2582149 0.3919536 0.6016512 0.6127931 0.5930053
## Cluster 2 0.1858944 0.2613167 0.3438915 0.4527126 0.5256305 0.5576510 0.4102287
## Cluster 3 0.2068610 0.2359504 0.2695702 0.3659631 0.4406780 0.5169688 0.4934454
## Cluster 4 0.3302094 0.4232888 0.6178520 0.8093502 0.8410469 0.7367906 0.5966426
## Cluster 5 0.2638707 0.2809224 0.3177845 0.4060733 0.5163190 0.5072672 0.4302026
                 23829
                           23830
                                     23831
                                               23832
                                                          23833
                                                                    23834
                                                                              23835
## Cluster 1 0.5410066 0.5169244 0.5198899 0.4905809 0.5058528 0.4881790 0.4986724
## Cluster 2 0.3494047 0.2929707 0.2855015 0.2890000 0.2780616 0.2811818 0.2906804
## Cluster 3 0.4793887 0.4800539 0.4996837 0.5390809 0.5132255 0.5216170 0.5572879
## Cluster 4 0.5433610 0.5461877 0.4714801 0.4598412 0.4413935 0.4617292 0.4742238
## Cluster 5 0.4046379 0.3746767 0.3416897 0.3520000 0.3979267 0.3697974 0.3538707
                 23836
                           23837
##
                                     23838
                                               23839
                                                          23840
                                                                    23841
                                                                              23842
## Cluster 1 0.5112082 0.5361233 0.5389284 0.5223541 0.5823183 0.6253607 0.6853024
## Cluster 2 0.2712493 0.2867742 0.2903402 0.3006598 0.2720000 0.3018211 0.3735161
## Cluster 3 0.5821660 0.6108539 0.5734369 0.5518156 0.5584468 0.6320752 0.6986837
## Cluster 4 0.4304693 0.4395199 0.4926787 0.4640722 0.4691552 0.4989747 0.5985343
## Cluster 5 0.3380560 0.4157543 0.3672069 0.3274095 0.3625991 0.3742155 0.4059957
##
                 23843
                           23844
                                     23845
                                               23846
                                                          23847
                                                                    23848
                                                                              23849
```

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## Cluster 1 0.7811538 1.0343369 1.1747188 1.3103886 1.2379072 1.1097308 1.0473130
## Cluster 2 0.4632111 0.5584076 0.7629707 0.9658827 1.0793255 1.1822258 1.1321877
## Cluster 3 0.8116993 0.9796539 1.0406255 1.0955645 1.0602227 1.0241589 1.0021546
## Cluster 4 0.7400578 0.9589531 1.0645054 1.0552130 0.9688664 0.8833646 0.8385884
## Cluster 5 0.4972716 0.5812672 0.7386681 0.8425345 0.8538405 0.7852112 0.8059655
                 23850
                           23851
                                     23852
                                               23853
                                                          23854
                                                                    23855
##
                                                                              23856
## Cluster 1 1.0490570 0.9993727 0.9833196 0.9007666 0.7811141 0.7133740 0.5841154
## Cluster 2 1.0876012 1.1009062 1.1024985 1.0379179 1.0090205 0.8701408 0.7857302
## Cluster 3 0.9965149 0.9897248 0.9501121 0.9266014 0.8592965 0.8282071 0.7579546
## Cluster 4 0.7637726 0.7453430 0.7133538 0.6683213 0.6399278 0.6152960 0.5465560
  Cluster 5 0.7768060 0.8280948 0.8038448 0.7716853 0.7742069 0.8637672 0.8433448
                                     23859
                                               23860
                                                          23861
                 23857
                           23858
                                                                    23862
                                                                              23863
## Cluster 1 0.5073276 0.4011605 0.2879443 0.2296645 0.1906777 0.1611034 0.1590146
## Cluster 2 0.6179971 0.5144633 0.3822111 0.2642551 0.2151349 0.1777507 0.1733519
## Cluster 3 0.7009560 0.6035716 0.4802738 0.3907348 0.3285986 0.2589631 0.2222738
## Cluster 4 0.4969639 0.4010578 0.3263069 0.3133610 0.2962996 0.2467184 0.2433321
## Cluster 5 0.8612198 0.7973276 0.6709138 0.5613578 0.4627112 0.3768319 0.3315733
##
                 23864
                           23865
                                     23866
                                               23867
                                                          23868
                                                                    23869
                                                                              23870
## Cluster 1 0.1551698 0.1456340 0.1461592 0.1499390 0.1632851 0.1684164 0.1802427
## Cluster 2 0.1616012 0.1517977 0.1441437 0.1605660 0.1488504 0.1534633 0.1758534
## Cluster 3 0.2089007 0.2063064 0.1997730 0.1973532 0.2016113 0.2049943 0.2065390
## Cluster 4 0.2393032 0.2374621 0.2374440 0.2486462 0.2802744 0.3065884 0.3819350
## Cluster 5 0.2870345 0.2500086 0.2553922 0.2455603 0.2427931 0.2526724 0.2705474
                 23871
                           23872
                                     23873
                                               23874
                                                          23875
                                                                    23876
## Cluster 1 0.2058050 0.2591432 0.4203660 0.6336565 0.6238156 0.5587851 0.5309218
## Cluster 2 0.2603226 0.3619619 0.5190440 0.5394545 0.5256745 0.3841701 0.3272815
## Cluster 3 0.2421149 0.2653050 0.3598397 0.4395234 0.5051688 0.4909887 0.4755106
## Cluster 4 0.4307040 0.5711372 0.7744043 0.9017906 0.7947906 0.6953574 0.5375921
## Cluster 5 0.2741810 0.3216078 0.4251897 0.5164784 0.4807586 0.4782371 0.3681552
##
                 23878
                           23879
                                     23880
                                               23881
                                                          23882
                                                                    23883
                                                                              23884
## Cluster 1 0.5547679 0.5204960 0.4738700 0.4906870 0.4553289 0.4476605 0.4773117
## Cluster 2 0.2727243 0.2312522 0.2279472 0.2709179 0.2425161 0.2436921 0.2679208
## Cluster 3 0.4375149 0.4345972 0.5133177 0.5002000 0.4768326 0.5239759 0.5406582
## Cluster 4 0.5471805 0.4825018 0.4047906 0.3965993 0.4205921 0.3902816 0.4089856
  Cluster 5 0.3760216 0.4186207 0.3400474 0.3502241 0.3267629 0.3175690 0.3508491
                 23885
                                     23887
                                               23888
                                                          23889
                           23886
                                                                    23890
                                                                              23891
## Cluster 1 0.5027732 0.4595358 0.4578170 0.4778515 0.5368820 0.6345570 0.7682016
## Cluster 2 0.2828680 0.2441525 0.2654721 0.2667302 0.2902463 0.3162082 0.3686422
## Cluster 3 0.5467376 0.5253660 0.5562965 0.5891021 0.6277177 0.7010652 0.8541376
## Cluster 4 0.4342310 0.4037617 0.4022310 0.4680903 0.4704513 0.5615668 0.6625271
## Cluster 5 0.3579871 0.3715216 0.3464828 0.3397371 0.3643836 0.3986078 0.4565690
                 23892
                           23893
                                     23894
                                               23895
                                                          23896
                                                                    23897
                                                                              23898
## Cluster 1 0.9797281 1.1842003 1.2805332 1.1742573 1.0845438 1.0455915 0.9948966
## Cluster 2 0.4893666 0.6897361 0.8883372 1.1249472 1.1643842 1.1119824 1.0473900
## Cluster 3 0.9772908 1.0021943 0.9962752 1.0547220 1.0271546 1.0091759 0.9504667
## Cluster 4 0.8668484 0.9832310 0.9963610 0.9466209 0.8302780 0.7897690 0.7606390
## Cluster 5 0.5684526 0.6560603 0.7681250 0.7749914 0.7980172 0.8220216 0.8254267
                 23899
                           23900
                                     23901
                                                          23903
##
                                               23902
                                                                    23904
                                                                              23905
## Cluster 1 0.9721432 0.9619629 0.8966220 0.8105928 0.7114615 0.5730782 0.5035676
## Cluster 2 1.1476158 1.1035425 1.0480117 1.0009150 0.9248358 0.7550117 0.6062757
## Cluster 3 0.9171177 0.9125220 0.8961319 0.8826738 0.8065007 0.7313730 0.6800156
## Cluster 4 0.7585668 0.7651372 0.7652816 0.6858664 0.6299350 0.5269097 0.4215596
## Cluster 5 0.7989569 0.8020345 0.8100647 0.8555345 0.7682026 0.8107241 0.8124138
##
                 23906
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                                               23909
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                                                                    23911
                                                                              23912
```

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## Cluster 1 0.4187732 0.3035584 0.2275584 0.1928820 0.1638859 0.1511432 0.1481194
## Cluster 2 0.4844223 0.3350850 0.2607771 0.2236628 0.1678651 0.1650205 0.1477537
## Cluster 3 0.5814170 0.4685730 0.3810057 0.3076298 0.2685177 0.2353787 0.2182028
## Cluster 4 0.3944332 0.2923899 0.2635632 0.2566859 0.2458303 0.2341769 0.2157365
## Cluster 5 0.7940560 0.6089741 0.5251595 0.4629526 0.4180043 0.3488793 0.3157931
                 23913
                           23914
                                     23915
                                               23916
##
                                                          23917
                                                                    23918
                                                                              23919
## Cluster 1 0.1501379 0.1537772 0.1494032 0.1624536 0.1604814 0.1687454 0.1952255
## Cluster 2 0.1393226 0.1379619 0.1597977 0.1534663 0.1633402 0.1873402 0.2773255
## Cluster 3 0.2053518 0.2010553 0.2050397 0.2100014 0.2083305 0.2208567 0.2522298
## Cluster 4 0.2184910 0.2305523 0.2490578 0.2600072 0.2916426 0.3669278 0.4793394
  Cluster 5 0.2738578 0.2630129 0.2651121 0.2674397 0.2799138 0.2685302 0.2787457
                                     23922
                                               23923
                 23920
                           23921
                                                          23924
                                                                    23925
                                                                              23926
## Cluster 1 0.2442732 0.4134403 0.6107732 0.6505729 0.6089509 0.5729072 0.5391313
## Cluster 2 0.3513490 0.4731730 0.5493783 0.5420528 0.3783460 0.2914956 0.2820792
## Cluster 3 0.2797007 0.3748468 0.4668227 0.5153390 0.5056567 0.4561376 0.4655915
## Cluster 4 0.6034404 0.8164296 0.9137256 0.8439856 0.6950614 0.5047834 0.5040903
## Cluster 5 0.3300086 0.4231940 0.5482457 0.5198578 0.4228922 0.4009526 0.3598793
##
                 23927
                           23928
                                     23929
                                               23930
                                                          23931
                                                                    23932
                                                                              23933
## Cluster 1 0.5023475 0.4956141 0.4866565 0.4699523 0.4902865 0.5204549 0.5201684
## Cluster 2 0.3000645 0.2838006 0.2476364 0.2167390 0.2390645 0.2520205 0.2992727
## Cluster 3 0.4794496 0.5066809 0.4806794 0.4791277 0.5107617 0.5352908 0.5595631
## Cluster 4 0.4425018 0.4135776 0.4145921 0.4151697 0.4142058 0.4232166 0.5043971
## Cluster 5 0.3534009 0.3109784 0.3462155 0.3079655 0.3249569 0.3200388 0.3322198
                 23934
                           23935
                                     23936
                                               23937
                                                          23938
## Cluster 1 0.5052308 0.4905332 0.5016751 0.5729509 0.6404045 0.7698634 1.0094987
## Cluster 2 0.2715484 0.2707566 0.2475630 0.3172962 0.3415337 0.3960997 0.5218915
## Cluster 3 0.5698908 0.5848426 0.5661801 0.6110014 0.6967631 0.8029220 0.9572950
## Cluster 4 0.4337292 0.4407726 0.4763899 0.4916101 0.6403357 0.7182130 0.8650758
## Cluster 5 0.3344655 0.3539698 0.3721810 0.3613621 0.3877284 0.4676293 0.5818362
##
                 23941
                           23942
                                     23943
                                               23944
                                                          23945
                                                                    23946
                                                                              23947
## Cluster 1 1.1406446 1.2677374 1.2372387 1.1260093 1.0775955 1.0499788 1.0092918
## Cluster 2 0.6916716 0.8973372 0.9711965 1.0512581 1.1741466 1.1384428 1.0571584
## Cluster 3 1.0477163 1.0534553 1.0137106 0.9919461 0.9904440 1.0031078 1.0171943
## Cluster 4 0.9451336 1.0005271 0.9044693 0.8476245 0.8197040 0.8164657 0.7684152
## Cluster 5 0.6506810 0.7437112 0.8375345 0.8242802 0.7920259 0.7741509 0.7684698
                                               23951
                           23949
                                     23950
                                                          23952
                 23948
                                                                    23953
                                                                              23954
## Cluster 1 0.9193714 0.8691923 0.8358541 0.7267321 0.6467162 0.5236406 0.4251048
## Cluster 2 1.0533842 1.1046452 0.9955161 0.9428534 0.8375220 0.6707771 0.4921789
## Cluster 3 1.0062014 0.9714610 0.9393319 0.8657645 0.7977787 0.7017149 0.5517660
## Cluster 4 0.7265993 0.6859097 0.6554513 0.6255993 0.5262419 0.4569495 0.3848051
## Cluster 5 0.7552112 0.7779009 0.8173879 0.8915043 0.8403664 0.8666422 0.8417414
                 23955
                           23956
                                     23957
                                               23958
                                                          23959
                                                                              23961
                                                                    23960
## Cluster 1 0.3123462 0.2363276 0.1988462 0.1790729 0.1571618 0.1568727 0.1554801
## Cluster 2 0.3438446 0.2565396 0.2124985 0.1899326 0.1670469 0.1570645 0.1537067
## Cluster 3 0.4780298 0.3850993 0.3000610 0.2573915 0.2401489 0.2108695 0.2086681
## Cluster 4 0.3304152 0.3043827 0.2667401 0.2328592 0.2132563 0.2163394 0.2230830
## Cluster 5 0.7329267 0.5963966 0.5058664 0.4152888 0.3662155 0.3080905 0.2764871
                           23963
                                     23964
                                               23965
                                                          23966
##
                 23962
                                                                    23967
                                                                              23968
## Cluster 1 0.1558289 0.1558740 0.1638276 0.1612520 0.1819947 0.1959814 0.2827042
## Cluster 2 0.1496422 0.1494780 0.1490059 0.1567361 0.1859062 0.2810821 0.3560059
## Cluster 3 0.2034922 0.2062284 0.2050241 0.2115759 0.2042667 0.2472426 0.2856539
## Cluster 4 0.2301083 0.2410794 0.2348845 0.2876859 0.3644224 0.4809567 0.5900361
## Cluster 5 0.2589138 0.2578017 0.2641638 0.2370302 0.2541250 0.2788276 0.2855991
##
                 23969
                           23970
                                     23971
                                               23972
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                                                                    23974
                                                                              23975
```

```
## Cluster 1 0.4337745 0.6199191 0.6600398 0.5763687 0.5506711 0.5503541 0.5293594
## Cluster 2 0.4842375 0.5919619 0.5662639 0.4388534 0.3429150 0.2966774 0.2948475
## Cluster 3 0.3779730 0.4688582 0.5280199 0.5006312 0.4708411 0.4881348 0.4924638
## Cluster 4 0.8482816 0.9549747 0.7811805 0.6475560 0.5322924 0.4380361 0.4287112
## Cluster 5 0.3938750 0.4873966 0.4688534 0.4206078 0.3753405 0.3301681 0.3592198
                 23976
                           23977
                                     23978
                                               23979
                                                         23980
                                                                    23981
##
                                                                              23982
## Cluster 1 0.4991419 0.4977838 0.4846432 0.4766366 0.4905438 0.5430981 0.5049562
## Cluster 2 0.2892463 0.2555308 0.2443314 0.2453959 0.2821818 0.3065073 0.2993842
## Cluster 3 0.4828624 0.4808993 0.5056270 0.5237447 0.5302043 0.5597518 0.5513844
## Cluster 4 0.3946570 0.4725848 0.4057798 0.4132599 0.4329567 0.4443141 0.4301733
  Cluster 5 0.3382802 0.3095345 0.3263707 0.3146336 0.3663621 0.3643621 0.3568491
                           23984
                                     23985
                                               23986
                 23983
                                                         23987
                                                                    23988
                                                                              23989
## Cluster 1 0.4860782 0.4947997 0.5249058 0.6043541 0.7325424 0.9511592 1.1576817
## Cluster 2 0.2821349 0.2631701 0.2621760 0.2939560 0.4091173 0.5588798 0.6895953
## Cluster 3 0.5596071 0.5869986 0.6077489 0.7046965 0.7829716 0.9364539 1.0302624
## Cluster 4 0.4258123 0.4034188 0.4814224 0.5996643 0.7022022 0.8557365 1.0286137
## Cluster 5 0.3568233 0.3706724 0.3432371 0.3828017 0.4471595 0.5506336 0.6565216
##
                 23990
                           23991
                                     23992
                                               23993
                                                         23994
                                                                    23995
                                                                              23996
## Cluster 1 1.2112056 1.1850186 1.0752865 1.0530796 1.0203236 0.9678302 0.9166857
## Cluster 2 0.8087273 0.9102346 0.9906305 1.0581320 1.0174047 1.0077214 0.9620499
## Cluster 3 1.0909816 1.0176156 0.9921050 1.0191674 1.0118567 0.9768043 0.9260312
## Cluster 4 1.0283574 0.9134549 0.8226895 0.8174440 0.7205054 0.7136209 0.7444079
## Cluster 5 0.7067155 0.7519655 0.7656207 0.7805905 0.7494224 0.7806379 0.7738879
                 23997
                           23998
                                     23999
                                               24000
                                                         24001
                                                                    24002
## Cluster 1 0.8948156 0.8285995 0.7398581 0.5920491 0.5137732 0.4039191 0.3176247
## Cluster 2 1.0186100 0.9594252 0.8800704 0.7884252 0.6395601 0.4860821 0.3369179
## Cluster 3 0.9456057 0.8952908 0.8373674 0.7716184 0.7203688 0.5873121 0.4575631
## Cluster 4 0.7216354 0.7395018 0.6348051 0.5157473 0.4489025 0.3885271 0.3409495
## Cluster 5 0.8241164 0.8598879 0.8816681 0.7878060 0.8696207 0.7669828 0.6171983
##
                 24004
                           24005
                                     24006
                                               24007
                                                         24008
                                                                    24009
                                                                              24010
## Cluster 1 0.2447812 0.2052003 0.1782467 0.1679098 0.1675385 0.1596406 0.1553899
## Cluster 2 0.2756276 0.2233138 0.1934604 0.1694545 0.1492375 0.1466276 0.1384604
## Cluster 3 0.3728511 0.3184113 0.2752596 0.2505291 0.2280383 0.2097957 0.2020950
## Cluster 4 0.2855921 0.2557329 0.2440289 0.2354585 0.2173105 0.2292888 0.2328303
## Cluster 5 0.5278750 0.4559095 0.4443405 0.3457974 0.3275388 0.2813836 0.2821638
                           24012
                                     24013
                                               24014
                                                         24015
                 24011
                                                                    24016
                                                                              24017
## Cluster 1 0.1643355 0.1690332 0.1691817 0.1812997 0.1994111 0.2458992 0.4303926
## Cluster 2 0.1594223 0.1586716 0.1527830 0.1796598 0.2735601 0.3416598 0.4887185
## Cluster 3 0.2009759 0.1977589 0.2071376 0.2163390 0.2409035 0.2751064 0.3597674
## Cluster 4 0.2587870 0.2761119 0.3030289 0.3770469 0.4496101 0.6171697 0.7872310
## Cluster 5 0.2680345 0.2706250 0.2462672 0.2600776 0.2759267 0.2965948 0.4151336
                 24018
                           24019
                                     24020
                                               24021
                                                         24022
                                                                              24024
                                                                    24023
## Cluster 1 0.6193528 0.6504828 0.5907613 0.5805875 0.5120782 0.5291220 0.4908541
## Cluster 2 0.5516510 0.5422698 0.4128182 0.3213021 0.3193548 0.2781144 0.2968944
## Cluster 3 0.4632057 0.4787702 0.4670440 0.4567149 0.4817390 0.4959915 0.5183603
## Cluster 4 0.9020686 0.7159097 0.6161191 0.4842419 0.4261480 0.3837834 0.3687292
## Cluster 5 0.4602888 0.4628922 0.4587241 0.4139828 0.4127284 0.3686983 0.3556681
                           24026
                                                         24029
##
                 24025
                                     24027
                                               24028
                                                                    24030
                                                                              24031
## Cluster 1 0.4545424 0.4547997 0.4326485 0.4589509 0.5077334 0.5123528 0.4857692
## Cluster 2 0.2768768 0.2760352 0.2949296 0.3231965 0.3058240 0.2983021 0.3247654
## Cluster 3 0.5195489 0.5171277 0.5393560 0.6021262 0.6163489 0.6106468 0.5845064
## Cluster 4 0.4494332 0.4529675 0.4165235 0.4092202 0.3970325 0.3941119 0.4031877
## Cluster 5 0.3685086 0.3515819 0.3699009 0.3539741 0.3830172 0.4306379 0.3923405
##
                 24032
                           24033
                                     24034
                                               24035
                                                         24036
                                                                    24037
                                                                              24038
```

```
## Cluster 1 0.4886419 0.5220080 0.6084297 0.7304589 0.9404244 1.0938515 1.1970968
## Cluster 2 0.3276012 0.3351642 0.4114106 0.4732815 0.6309032 0.7924428 0.9458710
## Cluster 3 0.5826454 0.6031021 0.6430071 0.7816326 0.9456426 0.9956936 1.0199929
## Cluster 4 0.4391986 0.4671877 0.5721841 0.6898881 0.7827437 0.8938664 0.8535162
## Cluster 5 0.3843276 0.3606078 0.3890647 0.4879095 0.6117241 0.6827371 0.7708233
                 24039
                           24040
                                              24042
                                                        24043
##
                                    24041
                                                                   24044
                                                                             24045
## Cluster 1 1.1635584 1.1049164 1.042480 0.9909045 0.9586605 0.9152361 0.9155968
## Cluster 2 1.0728563 1.0809032 1.124276 1.0671760 1.0590968 1.0505953 0.9812845
## Cluster 3 1.0502794 1.0006397 1.005577 0.9409319 0.9233603 0.9201617 0.9166851
## Cluster 4 0.8697220 0.8628412 0.791639 0.8161264 0.7629675 0.7216426 0.7115307
  Cluster 5 0.8363276 0.8653879 0.908931 0.8585431 0.8470991 0.8285603 0.8429440
                                     24048
                 24046
                           24047
                                               24049
                                                          24050
                                                                    24051
                                                                              24052
## Cluster 1 0.8063515 0.7242095 0.6643780 0.5967294 0.5374390 0.4284032 0.3224430
## Cluster 2 0.9231056 0.8676598 0.8175777 0.7598328 0.6401672 0.5033343 0.4036334
## Cluster 3 0.8618879 0.8203518 0.7498085 0.7099177 0.6730553 0.5945887 0.4931617
## Cluster 4 0.6980939 0.6396137 0.5484007 0.5233213 0.4665884 0.4283141 0.3596498
## Cluster 5 0.8285345 0.8071509 0.7945086 0.7958966 0.8058491 0.7472586 0.6471250
##
                 24053
                           24054
                                     24055
                                               24056
                                                          24057
                                                                    24058
                                                                              24059
## Cluster 1 0.2688090 0.2351790 0.1927931 0.1808090 0.1796817 0.1708236 0.1680146
## Cluster 2 0.2877889 0.2294663 0.2069736 0.1892053 0.1923255 0.1751349 0.1666100
## Cluster 3 0.3897730 0.3316809 0.2744142 0.2583518 0.2379333 0.2235957 0.2135050
## Cluster 4 0.3155560 0.3042527 0.2780289 0.2618339 0.2722960 0.2608159 0.2666859
## Cluster 5 0.5369784 0.4665948 0.3895991 0.3503233 0.3018578 0.2868922 0.2982543
                 24060
                           24061
                                     24062
                                               24063
                                                          24064
                                                                    24065
## Cluster 1 0.1710305 0.1637719 0.1764244 0.1842334 0.2170186 0.2421353 0.3203329
## Cluster 2 0.1617859 0.1671701 0.1851378 0.2047478 0.2058006 0.2536862 0.3295748
## Cluster 3 0.2098624 0.2004298 0.2028936 0.2200624 0.2431234 0.2707901 0.2800624
## Cluster 4 0.2513827 0.2846354 0.3238556 0.3157184 0.3651119 0.4111625 0.4908231
## Cluster 5 0.3061940 0.2884569 0.2845948 0.2766250 0.2780388 0.3106466 0.3433793
##
                 24067
                           24068
                                     24069
                                               24070
                                                          24071
                                                                    24072
                                                                              24073
## Cluster 1 0.4203196 0.5235093 0.6667255 0.7226180 0.7130663 0.7048859 0.7629403
## Cluster 2 0.3696921 0.4012786 0.4592405 0.5234282 0.5990499 0.6157713 0.5756716
## Cluster 3 0.3556965 0.3934979 0.4974837 0.5451135 0.6506979 0.6965461 0.7068397
## Cluster 4 0.5688123 0.6485921 0.6967256 0.6747509 0.7378664 0.6762635 0.5952274
  Cluster 5 0.3754871 0.4266810 0.4173922 0.5282672 0.4564569 0.5154397 0.5844052
                                               24077
                                                          24078
                 24074
                           24075
                                     24076
                                                                    24079
## Cluster 1 0.7629430 0.7503607 0.7574363 0.7751207 0.7376061 0.7258249 0.6945517
## Cluster 2 0.5366774 0.5271408 0.5328827 0.5747155 0.5980792 0.5623519 0.5286364
## Cluster 3 0.7185078 0.7450340 0.7686709 0.7771418 0.7582170 0.7734638 0.7379518
## Cluster 4 0.5590686 0.5841119 0.6413213 0.5545307 0.5152671 0.4949206 0.5457798
## Cluster 5 0.5731810 0.5212845 0.5633966 0.6323534 0.6011379 0.5452284 0.5729569
                 24081
                           24082
                                     24083
                                               24084
                                                          24085
                                                                    24086
                                                                              24087
## Cluster 1 0.7208103 0.7632560 0.8530729 1.0325424 1.1606485 1.2702666 1.2450557
## Cluster 2 0.6161584 0.6301584 0.6399824 0.7699912 0.9768182 1.0973607 1.1826246
## Cluster 3 0.7617050 0.7815716 0.8269149 0.9882340 1.0924794 1.1480085 1.1318128
## Cluster 4 0.5998809 0.6082744 0.7239025 0.8575487 0.9624332 0.9979458 0.8462708
## Cluster 5 0.5841466 0.5549526 0.5781207 0.7162672 0.8602112 0.9205862 0.9493578
                 24088
                           24089
                                     24090
##
                                               24091
                                                          24092
                                                                    24093
                                                                              24094
## Cluster 1 1.1226565 1.0629987 0.9900570 0.9100491 0.8655610 0.7898355 0.7796817
## Cluster 2 1.1787243 1.1202522 1.0139648 1.0250000 0.9491525 0.9347889 0.9096481
## Cluster 3 1.0641433 1.0120227 0.9980965 0.9490468 0.9370567 0.8931206 0.8585730
## Cluster 4 0.8539134 0.8353105 0.8232996 0.7636245 0.7541264 0.7076823 0.6673032
## Cluster 5 0.9237586 0.9033276 0.8101034 0.8196897 0.7912888 0.7781552 0.8001164
##
                 24095
                           24096
                                     24097
                                               24098
                                                          24099
                                                                    24100
                                                                              24101
```

```
## Cluster 1 0.6940027 0.6310902 0.5693263 0.4718873 0.3726419 0.3254085 0.2782931
## Cluster 2 0.8154721 0.7505572 0.6348182 0.5327771 0.4534545 0.4000205 0.3024194
## Cluster 3 0.8056865 0.7821816 0.7528369 0.6621716 0.5686028 0.4718340 0.4094270
## Cluster 4 0.6136426 0.5708664 0.5032563 0.4504477 0.3946029 0.3284477 0.3265596
## Cluster 5 0.7571293 0.7324009 0.7954655 0.7935776 0.7140474 0.5901250 0.4970776
                 24102
                                               24105
                                                          24106
                           24103
                                     24104
                                                                    24107
                                                                              24108
## Cluster 1 0.2455438 0.2155544 0.1995729 0.1821910 0.1760186 0.1735318 0.1776565
## Cluster 2 0.2325572 0.2177683 0.2157654 0.2046979 0.1865484 0.1876540 0.1808856
## Cluster 3 0.3436993 0.3062837 0.2674255 0.2542454 0.2450567 0.2424496 0.2253121
## Cluster 4 0.3100794 0.2799567 0.2602274 0.2797437 0.2921588 0.2694079 0.2517545
  Cluster 5 0.4272845 0.4340043 0.3889914 0.3398060 0.3059138 0.3141379 0.2968276
                 24109
                           24110
                                     24111
                                               24112
                                                          24113
                                                                    24114
                                                                              24115
## Cluster 1 0.1771936 0.1752905 0.1801074 0.1925557 0.2212082 0.2485199 0.3431724
## Cluster 2 0.1707214 0.1688974 0.1883607 0.2054487 0.2238123 0.2768710 0.3029443
## Cluster 3 0.2161887 0.2165206 0.2258383 0.2346071 0.2453844 0.2604468 0.3039546
## Cluster 4 0.2896787 0.3223718 0.3281552 0.3618014 0.4251372 0.4589097 0.5360108
## Cluster 5 0.3158362 0.3037112 0.2861250 0.2984138 0.3140948 0.3522931 0.3887931
##
                 24116
                           24117
                                     24118
                                               24119
                                                          24120
                                                                    24121
                                                                              24122
## Cluster 1 0.4819523 0.5946963 0.7387467 0.8208475 0.8664058 0.8959801 0.9411963
## Cluster 2 0.3813754 0.4516716 0.5451026 0.5693460 0.6143783 0.6902874 0.6681173
## Cluster 3 0.3684270 0.4628539 0.5457872 0.6740851 0.7351603 0.8012426 0.8034539
## Cluster 4 0.6306606 0.7142094 0.7523502 0.7217437 0.8106318 0.7023827 0.7594079
## Cluster 5 0.4203534 0.4715560 0.4795259 0.5256853 0.5429267 0.5465216 0.5960991
                 24123
                           24124
                                     24125
                                               24126
                                                          24127
                                                                    24128
## Cluster 1 0.9181366 0.9646658 0.9595968 0.9664549 0.9155849 0.9025504 0.9048621
## Cluster 2 0.6627595 0.7808974 0.7458240 0.7028240 0.6830029 0.6537625 0.6573021
## Cluster 3 0.8181163 0.8775362 0.8863064 0.8864610 0.8510865 0.8356369 0.8464426
## Cluster 4 0.7211191 0.6918664 0.6719134 0.6541733 0.6606823 0.6186498 0.7073682
## Cluster 5 0.5556595 0.6036379 0.6193448 0.6313534 0.5972586 0.5862328 0.5469569
                 24130
                           24131
                                     24132
                                               24133
                                                          24134
                                                                    24135
                                                                              24136
## Cluster 1 0.9270424 0.9354469 1.1078435 1.1969536 1.2983793 1.1519735 1.1329920
## Cluster 2 0.6875630 0.7557009 0.9020499 1.1030235 1.2260440 1.2284985 1.1885161
## Cluster 3 0.8859532 0.9227418 1.0025447 1.0996695 1.1073773 1.0803248 1.0545461
## Cluster 4 0.7896101 0.8303177 0.9395812 1.0454585 1.0657365 1.0255957 0.9387401
## Cluster 5 0.5916509 0.6421983 0.7677759 0.8499914 0.8204009 0.9077241 0.9697371
                                               24140
                 24137
                           24138
                                     24139
                                                          24141
                                                                    24142
                                                                              24143
## Cluster 1 1.1332162 1.1327878 0.9914191 0.8950650 0.8976552 0.8104947 0.7118926
## Cluster 2 1.1412933 1.1198534 1.1861994 1.0110968 0.9597801 0.9000880 0.8587067
## Cluster 3 1.0610241 1.0358454 1.0162908 0.9062979 0.9580638 0.9396411 0.8383532
## Cluster 4 0.9030758 0.8705740 0.8224838 0.7384007 0.7370614 0.7176643 0.6295415
## Cluster 5 0.9517974 0.9204009 0.9190043 0.8864828 0.8737888 0.8676638 0.8222284
                 24144
                           24145
                                     24146
                                               24147
                                                          24148
                                                                    24149
                                                                              24150
## Cluster 1 0.6293462 0.5429814 0.4298833 0.3173806 0.2595013 0.2113382 0.1921141
## Cluster 2 0.7649560 0.6438358 0.4710293 0.3484985 0.2590645 0.2064545 0.1835718
## Cluster 3 0.7878950 0.7225248 0.6127674 0.5048780 0.3884681 0.3320482 0.2768950
## Cluster 4 0.5439928 0.4719964 0.3771841 0.3290614 0.2919819 0.2678953 0.2602130
## Cluster 5 0.8521810 0.8077500 0.7705431 0.6612802 0.5512629 0.4614828 0.3944353
##
                 24151
                           24152
                                     24153
                                               24154
                                                          24155
                                                                    24156
                                                                              24157
## Cluster 1 0.1814350 0.1761300 0.1735584 0.1722533 0.1746419 0.1795729 0.1831393
## Cluster 2 0.1724751 0.1608827 0.1715308 0.1591613 0.1596305 0.1603021 0.1664751
## Cluster 3 0.2646638 0.2439532 0.2360057 0.2211574 0.2179631 0.2262241 0.2302496
## Cluster 4 0.2534332 0.2423357 0.2524765 0.2766498 0.2829314 0.2909134 0.3385596
## Cluster 5 0.3415129 0.3077716 0.2963621 0.2975733 0.2961552 0.2718966 0.2703879
##
                 24158
                           24159
                                     24160
                                               24161
                                                          24162
                                                                    24163
                                                                              24164
```

```
## Cluster 1 0.1901114 0.2181008 0.2710133 0.3890464 0.5664934 0.5990849 0.6335027
## Cluster 2 0.1976188 0.2815894 0.3832786 0.4624018 0.5691349 0.5997009 0.4659296
## Cluster 3 0.2366908 0.2704894 0.2998014 0.3764128 0.4454340 0.4575390 0.4652043
## Cluster 4 0.4006498 0.4416679 0.5955993 0.7992635 0.8928881 0.7427762 0.6146895
## Cluster 5 0.2752629 0.3154483 0.3374138 0.4443405 0.5959267 0.5254957 0.4643147
                 24165
                           24166
                                               24168
                                                         24169
                                     24167
                                                                    24170
## Cluster 1 0.6233170 0.6732984 0.6961194 0.6443846 0.6475477 0.6105942 0.6364655
## Cluster 2 0.3740938 0.3548475 0.3858065 0.3388123 0.3532111 0.3992815 0.4014809
## Cluster 3 0.4895844 0.5345362 0.5331489 0.5681972 0.6095929 0.6537362 0.6512468
## Cluster 4 0.5388556 0.5514043 0.6035451 0.4925379 0.4965668 0.5191661 0.5619675
  Cluster 5 0.4777543 0.4177543 0.4340560 0.4264612 0.4516379 0.4423190 0.5103578
                           24173
                                               24175
                 24172
                                     24174
                                                         24176
                                                                    24177
                                                                              24178
## Cluster 1 0.6758674 0.7193462 0.6293077 0.6280955 0.6293753 0.6720557 0.7932467
## Cluster 2 0.3780323 0.4073666 0.3663284 0.3509472 0.3747742 0.3886833 0.4720235
## Cluster 3 0.6499092 0.6906738 0.6948326 0.6944496 0.6433858 0.7024681 0.7533858
## Cluster 4 0.5350433 0.5336101 0.5105776 0.5078809 0.5096390 0.5570505 0.6624838
## Cluster 5 0.4983190 0.5143664 0.4944224 0.4598147 0.4809828 0.4751121 0.5027845
##
                 24179
                           24180
                                     24181
                                               24182
                                                         24183
                                                                   24184
                                                                             24185
## Cluster 1 0.9189523 1.1638859 1.3368090 1.3972772 1.295520 1.1848634 1.1425385
## Cluster 2 0.5263255 0.6965953 0.8456305 1.0134868 1.144587 1.1818006 1.1731261
## Cluster 3 0.9473248 1.0889092 1.1518383 1.2145305 1.154979 1.1439603 1.1238723
## Cluster 4 0.7889928 1.0072599 1.1141155 1.0940794 1.099852 0.9873466 0.9832852
## Cluster 5 0.5979741 0.6716121 0.7798233 0.8664483 0.959375 0.9510517 0.9348621
                 24186
                           24187
                                     24188
                                               24189
                                                         24190
                                                                    24191
## Cluster 1 1.0852016 1.0724125 1.0070676 0.9307241 0.8692586 0.7650915 0.6538647
## Cluster 2 1.2234223 1.1752493 1.1199619 1.0304106 1.0016070 0.9268798 0.8181525
## Cluster 3 1.0800411 1.0610213 1.0170638 0.9990766 0.9586496 0.8884936 0.8220823
## Cluster 4 0.8727978 0.9030830 0.8380397 0.8225993 0.7805957 0.6917365 0.6047906
## Cluster 5 0.8906552 0.8710603 0.9231207 0.9070129 0.8946724 0.9002328 0.9161638
                 24193
                           24194
                                     24195
                                               24196
                                                         24197
                                                                    24198
                                                                              24199
## Cluster 1 0.5616764 0.4373541 0.3258528 0.2605358 0.2163528 0.2023408 0.1890504
## Cluster 2 0.6829238 0.5155249 0.4044428 0.3145630 0.2372903 0.2135777 0.2023519
## Cluster 3 0.7508028 0.6770879 0.5178965 0.4188426 0.3578454 0.3015021 0.2592652
## Cluster 4 0.5442635 0.4594729 0.3571661 0.3313466 0.3053321 0.2890036 0.2912419
  Cluster 5 0.8982241 0.8354569 0.7270129 0.6380517 0.5455733 0.4627672 0.4176466
                           24201
                                                         24204
                 24200
                                     24202
                                               24203
                                                                    24205
## Cluster 1 0.1812135 0.1785239 0.1779642 0.1809907 0.1903886 0.1878024 0.1924218
## Cluster 2 0.1900088 0.1751290 0.1705865 0.1707801 0.1726598 0.1695249 0.2052317
## Cluster 3 0.2565461 0.2483475 0.2367830 0.2360596 0.2306610 0.2477447 0.2595716
## Cluster 4 0.2728195 0.2764224 0.3022130 0.2830542 0.2880181 0.3467401 0.3820253
## Cluster 5 0.3618664 0.3735086 0.3562328 0.3542802 0.3517371 0.3056250 0.3223060
                 24207
                           24208
                                     24209
                                               24210
                                                         24211
                                                                    24212
                                                                              24213
## Cluster 1 0.2219019 0.2747918 0.4455504 0.5906963 0.6006273 0.5903263 0.6435809
## Cluster 2 0.2912229 0.3397126 0.4337478 0.5363372 0.5802375 0.4665337 0.3538856
## Cluster 3 0.2826355 0.3254028 0.3915135 0.4609787 0.4857787 0.5038099 0.5096979
## Cluster 4 0.4897762 0.6106643 0.8111300 0.8854585 0.8513971 0.7189603 0.6184874
## Cluster 5 0.3531940 0.3812672 0.4727112 0.5244009 0.5193621 0.4995690 0.5082974
                           24215
##
                 24214
                                     24216
                                               24217
                                                         24218
                                                                    24219
                                                                              24220
## Cluster 1 0.6452745 0.6705239 0.6762082 0.6483767 0.6615915 0.6720172 0.6717308
## Cluster 2 0.3435777 0.3866012 0.3879531 0.3438592 0.3316628 0.3581202 0.3450469
## Cluster 3 0.5635645 0.6057234 0.5853574 0.6275305 0.6108525 0.6555546 0.7066028
## Cluster 4 0.6007112 0.6179603 0.5439458 0.5590397 0.5452455 0.5665596 0.6019025
## Cluster 5 0.4511681 0.4738750 0.4581897 0.4820345 0.4452371 0.4241552 0.4568362
##
                 24221
                           24222
                                     24223
                                               24224
                                                         24225
                                                                    24226
                                                                              24227
```

```
## Cluster 1 0.6957480 0.6434231 0.6177401 0.6026671 0.6582361 0.7371883 0.8859125
## Cluster 2 0.4259384 0.4111173 0.4221613 0.4135015 0.4350029 0.4567214 0.5582551
## Cluster 3 0.7693362 0.7393915 0.7136908 0.7364993 0.8090099 0.8577844 0.9492014
## Cluster 4 0.5792852 0.5966931 0.5869747 0.5852455 0.5870758 0.6802238 0.7762996
## Cluster 5 0.5173405 0.5048147 0.4434569 0.4591983 0.4835948 0.5240431 0.5897716
                 24228
                           24229
                                                         24232
                                                                    24233
##
                                     24230
                                               24231
## Cluster 1 1.1498462 1.3557188 1.4498382 1.2963223 1.1897440 1.1165146 1.1174934
## Cluster 2 0.6962815 0.8828328 1.0263226 1.0665924 1.1232493 1.2531701 1.2041701
## Cluster 3 1.1084539 1.1397716 1.1452043 1.0887660 1.0795688 1.1293645 1.0597106
## Cluster 4 0.9207762 1.0763394 1.0268592 1.0380181 0.9810758 0.9663285 0.9442202
  Cluster 5 0.7178103 0.7827241 0.8424612 0.9409397 0.9770905 1.0130819 0.9767112
                           24236
                                     24237
                                               24238
                 24235
                                                         24239
                                                                    24240
                                                                              24241
## Cluster 1 1.0702029 1.0271353 0.9295239 0.8880398 0.8049310 0.6998952 0.5912825
## Cluster 2 1.1825337 1.1223196 1.0605836 0.9644282 0.8867390 0.7900499 0.6890264
## Cluster 3 1.0785277 1.0418596 0.9833603 0.9413745 0.9366227 0.8317518 0.7698113
## Cluster 4 0.8621372 0.8659097 0.8702888 0.8380758 0.7257473 0.5992202 0.5057798
## Cluster 5 0.9192543 0.9580259 0.9108793 0.9120819 0.8955431 0.9247974 0.9145000
##
                 24242
                           24243
                                     24244
                                               24245
                                                         24246
                                                                    24247
                                                                              24248
## Cluster 1 0.4500862 0.3354164 0.2596141 0.2279483 0.1933369 0.1862188 0.1853223
## Cluster 2 0.5525396 0.4092522 0.3132375 0.2446774 0.2225073 0.2094780 0.1994868
## Cluster 3 0.6752780 0.5247461 0.4125574 0.3308809 0.2922496 0.2632667 0.2566312
## Cluster 4 0.4337148 0.3729170 0.3211480 0.3159639 0.2960433 0.2825162 0.2742166
## Cluster 5 0.9026724 0.7370733 0.6525647 0.5172198 0.4284741 0.4057112 0.3625086
                 24249
                           24250
                                     24251
                                               24252
                                                         24253
                                                                    24254
## Cluster 1 0.1848647 0.1788422 0.1826247 0.1898210 0.1910570 0.2059390 0.2283674
## Cluster 2 0.1920997 0.1891114 0.1985367 0.1923519 0.2073284 0.2255161 0.2894399
## Cluster 3 0.2424979 0.2368979 0.2354468 0.2313858 0.2303787 0.2396809 0.2687362
## Cluster 4 0.2986859 0.3073899 0.3098989 0.3248375 0.3655415 0.4259783 0.4782924
## Cluster 5 0.3459655 0.3329871 0.3247759 0.3210474 0.3078966 0.3048534 0.3348578
                 24256
                           24257
                                     24258
                                               24259
                                                         24260
                                                                    24261
                                                                              24262
## Cluster 1 0.2861804 0.3914814 0.5133276 0.6241804 0.6186804 0.6580292 0.6534430
## Cluster 2 0.3805630 0.5070293 0.5996100 0.6080235 0.4866041 0.4122023 0.4291085
## Cluster 3 0.3054965 0.3569560 0.4568766 0.5127844 0.5101574 0.5192170 0.5150553
## Cluster 4 0.6036390 0.7658195 0.8652022 0.8014982 0.7050975 0.6401191 0.6286498
## Cluster 5 0.3631293 0.4461078 0.5348664 0.5105302 0.5194440 0.5099397 0.5435647
                           24264
                                     24265
                                                         24267
                 24263
                                               24266
                                                                    24268
## Cluster 1 0.6634721 0.6458939 0.6514987 0.6402507 0.6301141 0.6768090 0.7524523
## Cluster 2 0.4759062 0.4542933 0.3792229 0.3976510 0.4082199 0.4383109 0.4622874
## Cluster 3 0.6106099 0.6482638 0.6654582 0.6614298 0.6458326 0.6775589 0.7017816
## Cluster 4 0.6224801 0.6142491 0.6049495 0.6029856 0.6335126 0.6093105 0.5799025
## Cluster 5 0.4780172 0.4890862 0.5558448 0.4600905 0.4617543 0.4670991 0.4754914
                 24270
                           24271
                                     24272
                                               24273
                                                         24274
                                                                              24276
                                                                    24275
## Cluster 1 0.7004138 0.6362467 0.6365981 0.6914708 0.7570053 0.8922069 1.1134257
## Cluster 2 0.4308035 0.4205337 0.4343021 0.4578358 0.5000469 0.5925660 0.7037273
## Cluster 3 0.6837220 0.7209504 0.7335929 0.8041745 0.8196156 0.9689986 1.0837447
## Cluster 4 0.6150181 0.6461480 0.5917509 0.6530108 0.7528484 0.8156534 0.9972094
## Cluster 5 0.5188578 0.4403060 0.4801422 0.5142155 0.5471121 0.6187371 0.6959871
                           24278
                                     24279
                                               24280
##
                 24277
                                                         24281
                                                                    24282
                                                                              24283
## Cluster 1 1.2974416 1.3173117 1.2820544 1.2023634 1.1290464 1.0671976 1.0384218
## Cluster 2 0.8651466 1.0242991 1.1373578 1.1640938 1.1326510 1.1563988 1.0931026
## Cluster 3 1.1206298 1.1739986 1.1282468 1.1232000 1.0962865 1.0897021 1.0484340
## Cluster 4 1.1301913 1.0757329 1.0696787 0.9669928 0.9277978 0.8925162 0.8797798
## Cluster 5 0.8399181 0.9535431 0.9608319 0.9385560 1.0191724 0.9654224 0.9412198
##
                 24284
                           24285
                                     24286
                                               24287
                                                         24288
                                                                    24289
                                                                              24290
```

```
## Cluster 1 0.9976565 0.9388090 0.8699430 0.8034191 0.6618462 0.5642626 0.4419469
## Cluster 2 1.0705484 1.0575572 1.0083783 0.9089384 0.8039824 0.6771232 0.5601877
## Cluster 3 1.0073404 0.9904383 0.9415773 0.8978128 0.8519262 0.7734681 0.6679972
## Cluster 4 0.8179892 0.7825632 0.7755921 0.7124874 0.6240289 0.5512347 0.4690614
## Cluster 5 0.8991724 0.8878448 0.8845948 0.8866681 0.8829655 0.8878534 0.8103319
                 24291
                           24292
                                               24294
                                                          24295
                                                                    24296
##
                                     24293
## Cluster 1 0.3327905 0.2745902 0.2311605 0.2056167 0.1998117 0.1991963 0.1961326
## Cluster 2 0.4115132 0.2946979 0.2390616 0.2180499 0.2047801 0.1968211 0.1834897
## Cluster 3 0.5473106 0.4391035 0.3736681 0.3164823 0.2826837 0.2678043 0.2438894
## Cluster 4 0.4091155 0.3419314 0.3431300 0.3150325 0.3111769 0.2899278 0.2964368
  Cluster 5 0.6918060 0.5771681 0.5187414 0.4475819 0.4047716 0.3794957 0.3407672
                 24298
                           24299
                                               24301
                                     24300
                                                          24302
                                                                    24303
                                                                              24304
## Cluster 1 0.1976432 0.1879828 0.1956976 0.1984814 0.2140027 0.2279072 0.2867785
## Cluster 2 0.1814663 0.1819355 0.1747977 0.1900323 0.2195836 0.2798270 0.3111290
## Cluster 3 0.2447291 0.2342213 0.2359418 0.2403844 0.2515021 0.2806624 0.2915504
## Cluster 4 0.3150975 0.3238375 0.3276859 0.3337148 0.4266318 0.4969206 0.5834657
## Cluster 5 0.3349095 0.3303017 0.3107112 0.3015345 0.3168578 0.3041595 0.3527026
##
                 24305
                           24306
                                     24307
                                               24308
                                                          24309
                                                                    24310
                                                                              24311
## Cluster 1 0.3982931 0.5023369 0.5899271 0.6075769 0.6488634 0.6777573 0.6817851
## Cluster 2 0.4136481 0.5255455 0.5726569 0.5169883 0.4237155 0.4134106 0.4152317
## Cluster 3 0.3624312 0.4193234 0.4753447 0.5005943 0.5448099 0.5776043 0.6084426
## Cluster 4 0.7740758 0.8363357 0.8220325 0.7158809 0.7158303 0.6871733 0.6550614
## Cluster 5 0.4458103 0.5307414 0.5152414 0.4878060 0.4489440 0.4619914 0.4473233
                 24312
                           24313
                                     24314
                                               24315
                                                          24316
## Cluster 1 0.6821008 0.6904589 0.6459894 0.6731790 0.6568395 0.6903939 0.6794655
## Cluster 2 0.4215073 0.4074927 0.3692698 0.4081672 0.4327947 0.4358915 0.4454106
## Cluster 3 0.6355418 0.6536312 0.6612525 0.6690057 0.6759816 0.7299901 0.7011348
## Cluster 4 0.5784801 0.5757690 0.5463502 0.6292996 0.6012347 0.6092996 0.5933827
## Cluster 5 0.4474526 0.4084655 0.4387328 0.4476983 0.4345216 0.4902500 0.4655776
##
                 24319
                           24320
                                     24321
                                               24322
                                                          24323
                                                                    24324
                                                                              24325
## Cluster 1 0.6630159 0.7058011 0.6900875 0.7803912 0.8853581 1.1091326 1.3336857
## Cluster 2 0.4181584 0.4326628 0.5060645 0.5616628 0.6059824 0.7114985 0.8565894
## Cluster 3 0.7103078 0.6886865 0.7330780 0.8079816 0.8995915 1.0316071 1.1542099
## Cluster 4 0.5521516 0.5709422 0.6273538 0.6840000 0.8220181 1.0028339 1.0983791
## Cluster 5 0.4606983 0.4762759 0.4719526 0.5086595 0.5860862 0.7034914 0.8352328
                24326
                         24327
                                   24328
                                             24329
                                                        24330
                                                                  24331
                                                                            24332
## Cluster 1 1.396180 1.263621 1.1706406 1.1588064 1.0667281 1.0527626 1.0549324
## Cluster 2 1.043073 1.140267 1.1316569 1.1603988 1.2246305 1.1674399 1.1549707
## Cluster 3 1.207201 1.168245 1.1005433 1.1403078 1.0711858 1.0941986 1.0729745
## Cluster 4 1.028617 1.020646 1.0045451 0.9778375 0.9054224 0.8501516 0.9046245
## Cluster 5 0.854375 0.930569 0.9485517 0.8722112 0.8631034 0.9134310 0.8993664
                 24333
                           24334
                                     24335
                                               24336
                                                          24337
                                                                    24338
                                                                              24339
## Cluster 1 0.9768408 0.9016830 0.8511830 0.7230769 0.5892188 0.4528714 0.3621830
## Cluster 2 1.0874780 1.0343666 0.9428387 0.8300909 0.7236070 0.5603314 0.4211378
## Cluster 3 1.0205007 0.9930823 0.9486170 0.8779603 0.8113560 0.6860142 0.5556823
## Cluster 4 0.8034982 0.7742563 0.6808339 0.6154296 0.5550830 0.4728231 0.3825379
## Cluster 5 0.9097069 0.9587500 0.9645862 0.9156810 0.9371724 0.8688103 0.7666250
##
                 24340
                           24341
                                     24342
                                               24343
                                                          24344
                                                                    24345
                                                                              24346
## Cluster 1 0.3052374 0.2640584 0.2343117 0.2129443 0.2053727 0.2089271 0.2050875
## Cluster 2 0.3196598 0.2534516 0.2207478 0.2056305 0.1931701 0.1910323 0.1875748
## Cluster 3 0.4458667 0.3688340 0.3207319 0.2990511 0.2774043 0.2676113 0.2535362
## Cluster 4 0.3399206 0.3095704 0.2878123 0.2758628 0.2712527 0.2990217 0.3082022
## Cluster 5 0.6401853 0.5187069 0.4788750 0.4010862 0.3996810 0.3790474 0.3518879
##
                 24347
                           24348
                                     24349
                                               24350
                                                          24351
                                                                    24352
                                                                              24353
```

```
## Cluster 1 0.2086499 0.2152440 0.2126631 0.2282653 0.2449204 0.2802626 0.4185676
## Cluster 2 0.1910528 0.1944399 0.1934194 0.2400264 0.2773900 0.3319150 0.4248739
## Cluster 3 0.2551844 0.2561021 0.2599915 0.2663248 0.2879759 0.2987376 0.3756596
## Cluster 4 0.3206065 0.3425271 0.3549495 0.3989314 0.4471300 0.5615848 0.7314982
## Cluster 5 0.3510647 0.3371595 0.3117759 0.3164095 0.3405216 0.3756552 0.4671552
                 24354
                           24355
                                                          24358
##
                                     24356
                                               24357
                                                                    24359
                                                                              24360
## Cluster 1 0.5072745 0.5860172 0.6240584 0.6528634 0.7164642 0.7527905 0.7245650
## Cluster 2 0.5313871 0.5557771 0.5093724 0.5037214 0.4823636 0.4991408 0.4740674
## Cluster 3 0.4316794 0.4492780 0.4812184 0.5236496 0.5653404 0.6537589 0.6671660
## Cluster 4 0.8890072 0.7885271 0.6761408 0.6522310 0.6731191 0.6387365 0.6259242
  Cluster 5 0.4968103 0.5409095 0.5879483 0.4745776 0.5053491 0.4164612 0.4603922
                                               24364
                 24361
                           24362
                                     24363
                                                          24365
                                                                    24366
                                                                              24367
## Cluster 1 0.7199721 0.7316512 0.7187785 0.7341737 0.7284668 0.6805040 0.6588276
## Cluster 2 0.4818651 0.5312053 0.5419560 0.5497507 0.5012199 0.5325689 0.5313871
## Cluster 3 0.7153135 0.7290908 0.7488837 0.7500809 0.7871688 0.7421716 0.7372241
## Cluster 4 0.6248520 0.5986570 0.6559747 0.6762888 0.6509856 0.5939206 0.5731588
## Cluster 5 0.4793621 0.4933319 0.4948319 0.5461853 0.5145603 0.5031810 0.5600431
##
                 24368
                           24369
                                     24370
                                               24371
                                                          24372
                                                                    24373
                                                                              24374
## Cluster 1 0.6504788 0.6772454 0.7679655 0.8597268 1.0603422 1.2861353 1.3733820
## Cluster 2 0.5060147 0.4991496 0.5465484 0.6276452 0.7766012 0.9099413 1.0467801
## Cluster 3 0.7740865 0.7885433 0.8445121 0.9842355 1.1002199 1.1552113 1.1893929
## Cluster 4 0.5997112 0.6193682 0.7297581 0.8486643 0.9554513 0.9282310 0.9794729
## Cluster 5 0.5083017 0.5124440 0.5324181 0.5422112 0.6600991 0.8277888 0.8283836
                 24375
                           24376
                                     24377
                                               24378
                                                          24379
                                                                    24380
## Cluster 1 1.2897003 1.1555239 1.1303302 1.1083435 1.0567891 0.9752918 0.9422653
## Cluster 2 1.1381525 1.2011730 1.2001965 1.1481525 1.0683372 1.0376804 1.0411144
## Cluster 3 1.2096170 1.1585957 1.0994284 1.0615418 1.0390213 1.0080113 0.9610865
## Cluster 4 1.0040181 0.9692166 0.9357473 0.8707256 0.8596534 0.8381625 0.7783646
## Cluster 5 0.8585647 0.8974052 0.9851552 0.9187284 0.8922328 0.9221466 0.8998621
##
                 24382
                           24383
                                     24384
                                               24385
                                                          24386
                                                                    24387
                                                                              24388
## Cluster 1 0.8437613 0.7809960 0.6924814 0.6224244 0.5401247 0.4352480 0.3371751
## Cluster 2 0.9490762 0.9131496 0.8616804 0.7550587 0.6273548 0.4848299 0.4013930
## Cluster 3 0.9041007 0.8919404 0.8446227 0.7995574 0.7217660 0.5961220 0.5111191
## Cluster 4 0.7382455 0.7145848 0.6674368 0.5865921 0.5415343 0.4398556 0.4090469
## Cluster 5 0.8751121 0.8684784 0.8356681 0.8726466 0.8572112 0.7909612 0.7121853
                           24390
                                                          24393
                 24389
                                     24391
                                               24392
                                                                    24394
                                                                              24395
## Cluster 1 0.2837387 0.2552732 0.2313488 0.2093541 0.2065438 0.2010703 0.1917586
## Cluster 2 0.3174780 0.3021144 0.2763548 0.2304047 0.2099971 0.2035865 0.2068094
## Cluster 3 0.4228879 0.3754950 0.3295546 0.2938298 0.2811007 0.2635305 0.2556511
## Cluster 4 0.3947726 0.3465415 0.3485776 0.3117726 0.3081227 0.3070650 0.3261661
## Cluster 5 0.6227586 0.5438405 0.4712414 0.4192716 0.3784526 0.3612371 0.3276552
                 24396
                           24397
                                     24398
                                               24399
                                                          24400
                                                                    24401
                                                                              24402
## Cluster 1 0.1858501 0.1897162 0.1993873 0.2081936 0.2224310 0.2721870 0.3160531
## Cluster 2 0.2033050 0.2054721 0.2135161 0.2406804 0.2592639 0.2749589 0.3412317
## Cluster 3 0.2497603 0.2568865 0.2559589 0.2784652 0.2671248 0.2885589 0.2921546
## Cluster 4 0.3159495 0.3485343 0.3765668 0.3877184 0.4057617 0.5241444 0.5901986
## Cluster 5 0.2931034 0.3014181 0.3119698 0.3148922 0.3272026 0.3498017 0.3735560
                           24404
##
                 24403
                                     24405
                                               24406
                                                          24407
                                                                    24408
                                                                              24409
## Cluster 1 0.3759549 0.4689589 0.5822440 0.7294324 0.7908660 0.8660358 0.8265716
## Cluster 2 0.4014663 0.4242874 0.4831026 0.5596217 0.5798739 0.6466188 0.6321085
## Cluster 3 0.3490993 0.3979021 0.4837135 0.5385872 0.6339773 0.6947801 0.7061518
## Cluster 4 0.6462852 0.6691119 0.6847834 0.7337256 0.6803430 0.6600397 0.6399639
## Cluster 5 0.3894957 0.4066293 0.5115948 0.5328448 0.5302759 0.5549483 0.5633103
##
                 24410
                           24411
                                     24412
                                               24413
                                                          24414
                                                                    24415
                                                                              24416
```

```
## Cluster 1 0.8319576 0.8277732 0.8361605 0.8236194 0.7852202 0.7643554 0.7507268
## Cluster 2 0.6249853 0.6108152 0.6253812 0.6390264 0.6484956 0.6003255 0.5964604
## Cluster 3 0.7884128 0.7734738 0.8115433 0.8309844 0.8485418 0.7871333 0.8010752
## Cluster 4 0.6556426 0.6687473 0.6583791 0.6341083 0.6732310 0.6379350 0.6106282
## Cluster 5 0.5781897 0.5998017 0.6533836 0.6630259 0.6225086 0.5959655 0.5919655
                                               24420
                                                         24421
                                                                    24422
##
                 24417
                           24418
                                     24419
## Cluster 1 0.7636844 0.8389390 0.8607480 1.0909987 1.2751499 1.3712095 1.2759934
## Cluster 2 0.6087595 0.6427830 0.6902346 0.8772874 1.0596041 1.1549003 1.2143959
## Cluster 3 0.8398851 0.8932652 0.9466113 1.1169234 1.2506057 1.2337475 1.2330255
## Cluster 4 0.6893682 0.7097942 0.8025090 0.9691516 0.9389639 0.9830903 0.8853249
  Cluster 5 0.6518750 0.6469655 0.7101207 0.8116897 0.8859095 0.9004828 0.9508664
                           24425
                                               24427
                 24424
                                     24426
                                                         24428
                                                                    24429
                                                                              24430
## Cluster 1 1.1514867 1.1000875 1.0984297 0.9977347 0.9354668 0.8944761 0.8410968
## Cluster 2 1.2727654 1.1923812 1.0700821 1.0664839 1.0420587 1.0096422 0.9561760
## Cluster 3 1.2257901 1.1688582 1.1130128 1.0435787 1.0251929 0.9849858 0.9401277
## Cluster 4 0.9494765 0.9301769 0.8679819 0.8342274 0.7742924 0.7407798 0.7168664
## Cluster 5 0.9272155 0.9695000 0.9829009 0.8903879 0.8965905 0.8902371 0.8778578
##
                 24431
                           24432
                                     24433
                                               24434
                                                         24435
                                                                    24436
                                                                              24437
## Cluster 1 0.7679416 0.7303886 0.6466353 0.5396432 0.4410743 0.3487692 0.2781008
## Cluster 2 0.8814985 0.7858006 0.7025630 0.6154633 0.5087067 0.4206979 0.3603226
## Cluster 3 0.9095348 0.8474794 0.8104823 0.7357972 0.6209121 0.5097759 0.4362199
## Cluster 4 0.6618989 0.6066931 0.5501480 0.4824007 0.4309819 0.3691877 0.3565596
## Cluster 5 0.8578448 0.8067500 0.8289224 0.8410690 0.7517586 0.6526034 0.6207759
                 24438
                           24439
                                     24440
                                               24441
                                                         24442
## Cluster 1 0.2636857 0.2330544 0.2228647 0.2114788 0.1995332 0.1988541 0.1954032
## Cluster 2 0.3069560 0.2548416 0.2390147 0.2174047 0.1960029 0.1988886 0.1977859
## Cluster 3 0.3977773 0.3502241 0.3227801 0.3082624 0.2812213 0.2731589 0.2556113
## Cluster 4 0.3380181 0.3157653 0.3116787 0.3313357 0.3359278 0.3338051 0.3244224
## Cluster 5 0.5525517 0.4954828 0.4947198 0.4307931 0.3805733 0.3815474 0.3521724
                 24445
                           24446
                                     24447
                                               24448
                                                         24449
                                                                    24450
                                                                              24451
## Cluster 1 0.1962042 0.1981406 0.2061326 0.2178196 0.2454469 0.2780265 0.3438395
## Cluster 2 0.2024545 0.1942111 0.2078006 0.2271760 0.2363636 0.2778563 0.3130674
## Cluster 3 0.2572057 0.2492922 0.2668525 0.2661390 0.2919546 0.2917078 0.3310312
## Cluster 4 0.3169278 0.3413935 0.3734801 0.3900794 0.4340397 0.5425451 0.6600433
## Cluster 5 0.3189612 0.3555517 0.3165345 0.3115517 0.3801207 0.3764612 0.3541336
                                               24455
                 24452
                           24453
                                     24454
                                                         24456
                                                                    24457
                                                                              24458
## Cluster 1 0.4603979 0.5876167 0.7319469 0.7952891 0.8628780 0.8799801 0.9292560
## Cluster 2 0.3325924 0.4028504 0.5165806 0.5600205 0.6123636 0.6905806 0.6571466
## Cluster 3 0.3940553 0.4716794 0.5634681 0.7010596 0.7590284 0.8667277 0.9098950
## Cluster 4 0.6429892 0.7181661 0.6841913 0.7851805 0.8451336 0.8381841 0.8327617
## Cluster 5 0.3960905 0.4312457 0.4438836 0.4813750 0.5385948 0.5340388 0.5671466
                 24459
                           24460
                                     24461
                                               24462
                                                         24463
                                                                              24465
                                                                    24464
## Cluster 1 0.9392586 0.9728289 1.0116790 0.9453899 0.8391061 0.7966459 0.7956897
## Cluster 2 0.6729677 0.7359443 0.7292463 0.7358768 0.5835543 0.5575982 0.5412493
## Cluster 3 0.9282369 0.9898298 0.9714085 0.9048156 0.9122397 0.8840596 0.8620553
## Cluster 4 0.8727437 0.8405415 0.7280433 0.6856823 0.7138628 0.7235451 0.7830217
## Cluster 5 0.6403879 0.6054569 0.6608534 0.5738793 0.5371207 0.5876078 0.5604957
##
                 24466
                           24467
                                     24468
                                               24469
                                                         24470
                                                                    24471
                                                                              24472
## Cluster 1 0.8386844 0.9207507 1.0786910 1.1955093 1.2764775 1.2132507 1.2354390
## Cluster 2 0.5844340 0.7009531 0.8862023 1.1039062 1.2246393 1.2083431 1.2268065
## Cluster 3 0.8810922 0.9468879 1.0435887 1.1751759 1.1461248 1.0956241 1.0873248
## Cluster 4 0.8107726 0.8929025 0.9625560 1.0593935 1.0296679 0.9994079 0.9918953
## Cluster 5 0.5806078 0.6429353 0.7742328 0.8283405 0.9177414 0.9018922 0.9174440
##
                 24473
                           24474
                                     24475
                                               24476
                                                         24477
                                                                    24478
                                                                              24479
```

```
## Cluster 1 1.1857029 1.1398501 1.0299231 0.9358647 0.9584788 0.8959655 0.7699960
## Cluster 2 1.2774252 1.2686774 1.1701584 1.0585279 1.0051496 0.9865425 0.8782845
## Cluster 3 1.0459688 1.0063177 0.9736596 0.9778652 0.9920482 0.9724213 0.9158241
## Cluster 4 0.9624332 0.8569170 0.8078267 0.7978339 0.8097834 0.7739170 0.6809819
## Cluster 5 0.9760603 0.9690172 0.9418276 0.9130647 0.9301422 0.9195216 0.8963448
                 24480
                                     24482
                                               24483
                                                         24484
##
                           24481
                                                                    24485
## Cluster 1 0.6662599 0.5771061 0.4821141 0.3595623 0.3001048 0.2546724 0.2289695
## Cluster 2 0.7524604 0.6748886 0.5821525 0.4548651 0.3438710 0.2732786 0.2225367
## Cluster 3 0.8386894 0.7605177 0.6577745 0.5626312 0.4402440 0.3859149 0.3251007
## Cluster 4 0.5720650 0.5137112 0.4264477 0.3810108 0.3563755 0.3094332 0.3018375
  Cluster 5 0.9164095 0.9092716 0.8650517 0.7784655 0.6835948 0.5869914 0.4998664
                           24488
                                               24490
                 24487
                                     24489
                                                         24491
                                                                    24492
                                                                              24493
## Cluster 1 0.2141512 0.2117905 0.1972202 0.1997997 0.1939894 0.1956154 0.2036936
## Cluster 2 0.2212522 0.1962874 0.1914194 0.1956862 0.1978915 0.1862727 0.1903519
## Cluster 3 0.2841702 0.2689418 0.2541560 0.2500284 0.2430284 0.2455887 0.2484199
## Cluster 4 0.2973646 0.2785596 0.3006679 0.3174079 0.3405812 0.3058051 0.3674513
## Cluster 5 0.4192457 0.3778233 0.3628190 0.3640948 0.3432759 0.3309612 0.3280216
##
                 24494
                           24495
                                     24496
                                               24497
                                                         24498
                                                                    24499
                                                                              24500
## Cluster 1 0.2158634 0.2292560 0.2894377 0.4226485 0.5748899 0.6306565 0.6354324
## Cluster 2 0.2201994 0.2934897 0.3695279 0.4930059 0.5787478 0.5796540 0.4818240
## Cluster 3 0.2518979 0.2813830 0.3152652 0.3706099 0.4451021 0.5304780 0.5034596
## Cluster 4 0.4097365 0.4796931 0.6122744 0.7733213 0.9578087 0.8683430 0.7414729
## Cluster 5 0.3195517 0.3474741 0.3789310 0.4527543 0.5505259 0.5664741 0.5687371
                 24501
                           24502
                                     24503
                                               24504
                                                         24505
                                                                    24506
## Cluster 1 0.6341154 0.6375809 0.6427308 0.6588210 0.6271724 0.6348355 0.6437984
## Cluster 2 0.3955836 0.3852317 0.3455953 0.3501584 0.3444487 0.3506686 0.3436657
## Cluster 3 0.5233007 0.5379248 0.5592567 0.5884695 0.5868057 0.6323745 0.6510170
## Cluster 4 0.6507256 0.6301372 0.5639097 0.5670217 0.5309747 0.5394910 0.5629856
## Cluster 5 0.5432241 0.4621767 0.4872672 0.4758793 0.4696336 0.4701681 0.5056379
##
                 24508
                           24509
                                     24510
                                               24511
                                                         24512
                                                                    24513
                                                                              24514
## Cluster 1 0.6575570 0.6438992 0.5947931 0.6017958 0.6137188 0.6499748 0.7007692
## Cluster 2 0.3637625 0.3662962 0.3643842 0.3323284 0.3409589 0.3772170 0.4213372
## Cluster 3 0.6926652 0.7042582 0.6830823 0.6826184 0.6679816 0.7040695 0.7862099
## Cluster 4 0.5525704 0.5470650 0.5319386 0.5356931 0.5907329 0.5911264 0.6327545
## Cluster 5 0.4926552 0.5088750 0.4597328 0.3859526 0.4324483 0.4420819 0.5210129
                                                         24519
                 24515
                           24516
                                     24517
                                               24518
                                                                    24520
                                                                              24521
## Cluster 1 0.8471074 1.0684244 1.2971963 1.3842347 1.3633382 1.2554987 1.2151897
## Cluster 2 0.5079853 0.7204985 0.8589501 1.0595249 1.1320117 1.2368974 1.3166891
## Cluster 3 0.9309844 1.0820979 1.1960071 1.2028496 1.1785674 1.0800284 1.1411064
## Cluster 4 0.8222960 1.0138123 1.1475740 1.0421408 1.0330903 0.9535199 0.9355307
## Cluster 5 0.5641638 0.7039267 0.8245172 0.9479353 0.9231078 0.9560172 0.9468362
                 24522
                           24523
                                     24524
                                               24525
                                                         24526
                                                                    24527
                                                                              24528
## Cluster 1 1.1841499 1.1160451 0.9908833 1.0061393 0.9029045 0.8116512 0.7148037
## Cluster 2 1.2458475 1.1906217 1.1312287 1.0585572 0.9994076 0.9372551 0.8293402
## Cluster 3 1.0847702 1.0545177 0.9995858 1.0042993 0.9522227 0.9248539 0.8548681
## Cluster 4 0.9382419 0.8961155 0.8248520 0.8132888 0.8045126 0.7301480 0.6660578
## Cluster 5 0.9104741 0.9101422 0.9346164 0.9229483 0.8371853 0.8673319 0.9249483
                           24530
##
                 24529
                                     24531
                                               24532
                                                         24533
                                                                    24534
                                                                              24535
## Cluster 1 0.6142679 0.4744987 0.3727546 0.2978103 0.2508369 0.2170729 0.2047666
## Cluster 2 0.7333079 0.5532962 0.3971349 0.3239795 0.2551408 0.2219091 0.2075161
## Cluster 3 0.7796780 0.6722199 0.5688284 0.4491773 0.3865064 0.3326922 0.2958652
## Cluster 4 0.5560542 0.4484729 0.3798231 0.3469242 0.3258809 0.3018953 0.2881552
## Cluster 5 0.8779310 0.8244655 0.7522802 0.6210474 0.5523362 0.4831638 0.4229957
##
                 24536
                           24537
                                     24538
                                               24539
                                                         24540
                                                                    24541
                                                                              24542
```

```
## Cluster 1 0.1956936 0.1961048 0.1931021 0.1877772 0.1890225 0.2079324 0.2111936
## Cluster 2 0.1891232 0.1920059 0.1901026 0.1899179 0.1980352 0.1953900 0.2097742
## Cluster 3 0.2741887 0.2561518 0.2482681 0.2572468 0.2606113 0.2634766 0.2675305
## Cluster 4 0.2881336 0.2879170 0.3037509 0.3079314 0.2985632 0.3515162 0.4048339
## Cluster 5 0.3844224 0.3775129 0.3455129 0.3298319 0.3274871 0.3096379 0.3382500
                                                          24547
##
                 24543
                           24544
                                     24545
                                               24546
                                                                    24548
                                                                              24549
## Cluster 1 0.2458833 0.2958435 0.4329138 0.5646366 0.6063369 0.5686021 0.5761525
## Cluster 2 0.2808504 0.3578944 0.4730088 0.5347977 0.5351232 0.4633519 0.4058211
## Cluster 3 0.2884596 0.3178468 0.3990823 0.4630000 0.4950284 0.5246241 0.5337135
## Cluster 4 0.4866498 0.6285596 0.7813899 0.8924260 0.8217292 0.7042816 0.6365776
  Cluster 5 0.3413793 0.3613147 0.4659914 0.5064009 0.5126293 0.4871293 0.4265647
                           24551
                 24550
                                     24552
                                               24553
                                                          24554
                                                                    24555
                                                                              24556
## Cluster 1 0.6334045 0.6203753 0.6976247 0.6644814 0.6597745 0.6698886 0.7078873
## Cluster 2 0.3815806 0.3655161 0.3563695 0.3551202 0.3331466 0.3524252 0.4058152
## Cluster 3 0.5282539 0.5730908 0.6007078 0.6085645 0.6456326 0.6560511 0.7212525
## Cluster 4 0.5697942 0.5408989 0.5841408 0.5787942 0.5449242 0.5726065 0.5654621
## Cluster 5 0.4842759 0.4623707 0.4001853 0.4426379 0.4445991 0.4458793 0.4631207
##
                 24557
                           24558
                                     24559
                                               24560
                                                          24561
                                                                    24562
                                                                              24563
## Cluster 1 0.7698223 0.7063621 0.6690981 0.6818316 0.7225663 0.8010981 0.8573037
## Cluster 2 0.4248123 0.3938592 0.3862434 0.3814047 0.3836452 0.4153343 0.5350587
## Cluster 3 0.7331248 0.7353816 0.7065858 0.7072312 0.7708837 0.8671319 0.9389291
## Cluster 4 0.5369097 0.5636968 0.5646534 0.5837617 0.5890650 0.6625379 0.8267148
## Cluster 5 0.4802069 0.4864914 0.4376681 0.4443750 0.5026724 0.4799784 0.5871853
                 24564
                           24565
                                     24566
                                              24567
                                                         24568
## Cluster 1 1.0982798 1.3116114 1.4252865 1.304086 1.1912175 1.1687639 1.1127361
## Cluster 2 0.6644516 0.8075484 1.0079765 1.067047 1.1789443 1.2666246 1.2356862
## Cluster 3 1.1212142 1.2167858 1.2349603 1.190206 1.1113333 1.0708596 1.0960426
## Cluster 4 0.9830578 1.0666931 1.1912996 1.116856 1.0308267 0.9720289 0.9297184
## Cluster 5 0.6986379 0.7486767 0.8746853 0.915750 0.8648276 0.9178147 0.8747241
                 24571
                           24572
                                     24573
                                               24574
                                                          24575
                                                                    24576
                                                                              24577
## Cluster 1 1.0861684 1.0060889 0.9639257 0.9418700 0.7826485 0.6840517 0.5700345
## Cluster 2 1.2083255 1.1401320 1.1429560 1.0617185 0.9765806 0.8617155 0.7402551
## Cluster 3 1.0624312 1.0852213 1.0331872 1.0027163 0.9435121 0.8460766 0.7550326
## Cluster 4 0.8725632 0.8519170 0.8266534 0.7476931 0.6796245 0.6009747 0.5296101
  Cluster 5 0.8803147 0.8643922 0.9180905 0.8993017 0.9281853 0.9226983 0.9578190
                 24578
                           24579
                                     24580
                                               24581
                                                          24582
                                                                    24583
## Cluster 1 0.4473939 0.3317520 0.2804403 0.2502294 0.2130610 0.2047003 0.2061830
## Cluster 2 0.5738827 0.4069824 0.3403021 0.2583695 0.2342229 0.2177302 0.2098534
## Cluster 3 0.6638000 0.5640369 0.4735064 0.3939121 0.3325078 0.3090908 0.2758142
## Cluster 4 0.4180830 0.3825812 0.3324838 0.3057726 0.2947798 0.2934585 0.3044838
## Cluster 5 0.8903448 0.7296983 0.6052672 0.5217069 0.4525388 0.4067371 0.3789397
                 24585
                           24586
                                     24587
                                               24588
                                                          24589
                                                                    24590
                                                                              24591
## Cluster 1 0.1968090 0.1882838 0.1833926 0.1894960 0.1985716 0.2053634 0.2396366
## Cluster 2 0.2087009 0.2019824 0.2099208 0.2017566 0.2130440 0.2468504 0.2928211
## Cluster 3 0.2668794 0.2483447 0.2479163 0.2483603 0.2502582 0.2634979 0.2903191
## Cluster 4 0.3229603 0.3076534 0.3008267 0.3036968 0.3579495 0.4048303 0.4680036
## Cluster 5 0.3742500 0.3592155 0.3462629 0.3310216 0.2956293 0.3175302 0.3304138
                                                          24596
##
                 24592
                           24593
                                     24594
                                               24595
                                                                    24597
                                                                              24598
## Cluster 1 0.2963156 0.4127732 0.5289668 0.6231897 0.6346936 0.6903090 0.6649469
## Cluster 2 0.4015396 0.5202317 0.5574663 0.5554545 0.4851261 0.4076188 0.4041554
## Cluster 3 0.3242908 0.4030922 0.4532113 0.4861759 0.4990851 0.5154142 0.5463589
## Cluster 4 0.5965235 0.7227473 0.8662960 0.8996137 0.7263177 0.6620036 0.6106968
## Cluster 5 0.3653750 0.4311466 0.5179095 0.5603922 0.5409569 0.5540776 0.4885388
##
                 24599
                           24600
                                     24601
                                               24602
                                                          24603
                                                                    24604
                                                                              24605
```

```
## Cluster 1 0.6923382 0.6868156 0.6457095 0.6273647 0.6236313 0.6464151 0.6931724
## Cluster 2 0.3988944 0.4061349 0.3703167 0.3815660 0.3848152 0.3747449 0.3975249
## Cluster 3 0.5805872 0.6063376 0.6288440 0.6499035 0.6677050 0.6792809 0.7098099
## Cluster 4 0.5825848 0.5943610 0.6146787 0.5575632 0.6583069 0.5654657 0.5861300
## Cluster 5 0.4641466 0.4722198 0.4320603 0.4182328 0.4681336 0.4619655 0.5005862
                 24606
                           24607
                                               24609
                                                         24610
##
                                     24608
                                                                    24611
## Cluster 1 0.6565332 0.6481684 0.6336844 0.6395385 0.6891538 0.8236592 1.0615557
## Cluster 2 0.3762757 0.3641144 0.3849589 0.4116012 0.4431408 0.4983636 0.5823284
## Cluster 3 0.6351518 0.6773163 0.6676014 0.7642014 0.7763887 0.9214199 1.0702043
## Cluster 4 0.5884729 0.6207148 0.5743574 0.5980614 0.6868989 0.7996245 1.0153718
  Cluster 5 0.5548448 0.4766207 0.4640129 0.4903017 0.4604483 0.5038405 0.6818233
                 24613
                           24614
                                     24615
                                               24616
                                                         24617
                                                                    24618
                                                                              24619
## Cluster 1 1.2447878 1.3667997 1.3465477 1.2634735 1.1544218 1.1474867 1.1221804
## Cluster 2 0.7153754 0.9457390 1.0863109 1.0974164 1.2128475 1.1687361 1.1379032
## Cluster 3 1.2094879 1.2054596 1.1904454 1.1791532 1.1487064 1.1285858 1.0800936
## Cluster 4 1.1080975 1.1341372 1.1327220 1.0540578 1.0185632 0.9570866 0.9361300
## Cluster 5 0.8260776 0.9150819 0.9571983 0.9055603 0.8907586 0.8680862 0.8838319
##
                 24620
                           24621
                                     24622
                                               24623
                                                         24624
                                                                    24625
                                                                              24626
## Cluster 1 1.0828369 0.9967255 0.9193090 0.8356671 0.7061141 0.5441963 0.4404496
## Cluster 2 1.1554663 1.1303138 1.0852698 0.9891056 0.8647859 0.6753930 0.5577273
## Cluster 3 1.0981915 1.0391986 1.0282908 0.9611064 0.9051121 0.7973858 0.6713390
## Cluster 4 0.8773069 0.8402022 0.7795632 0.7357220 0.6441264 0.5590830 0.5314440
## Cluster 5 0.9260302 0.9250043 0.9732198 0.9534397 0.8748147 0.8621034 0.8082241
                 24627
                           24628
                                     24629
                                               24630
                                                         24631
                                                                    24632
## Cluster 1 0.3246950 0.2698408 0.2328050 0.2170252 0.2001844 0.1938276 0.1898528
## Cluster 2 0.4137331 0.3088622 0.2443724 0.2168446 0.2097830 0.1905543 0.1889032
## Cluster 3 0.5558355 0.4624071 0.3663574 0.3215603 0.2940567 0.2629433 0.2553305
## Cluster 4 0.4285090 0.3495343 0.3214801 0.3052635 0.3078412 0.3068014 0.3198809
## Cluster 5 0.7147328 0.5796293 0.5468362 0.4464138 0.4135647 0.3902629 0.3682931
##
                 24634
                           24635
                                     24636
                                               24637
                                                         24638
                                                                    24639
                                                                              24640
## Cluster 1 0.1836061 0.1860756 0.1941220 0.1974231 0.2065186 0.2413939 0.2868634
## Cluster 2 0.1866510 0.1907654 0.1799472 0.1939267 0.2148798 0.2717537 0.3894516
## Cluster 3 0.2527617 0.2489915 0.2577759 0.2686028 0.2699475 0.2858411 0.3301759
## Cluster 4 0.3289531 0.3222383 0.3228989 0.3841986 0.4230217 0.4718556 0.6529170
## Cluster 5 0.3445431 0.3286250 0.3240690 0.3301983 0.3397500 0.3550086 0.3934784
                           24642
                                     24643
                                               24644
                                                         24645
                 24641
                                                                    24646
## Cluster 1 0.4231273 0.6080491 0.6766910 0.6358077 0.5999019 0.6418647 0.6009178
## Cluster 2 0.5158446 0.5637097 0.5593343 0.4551994 0.4117449 0.3720352 0.3781202
## Cluster 3 0.4180411 0.4974638 0.5413504 0.5240738 0.5370582 0.5294255 0.5461248
## Cluster 4 0.9069567 1.0049350 0.8825126 0.7171408 0.6027473 0.5574152 0.5657004
## Cluster 5 0.4912759 0.5418233 0.5535216 0.5242500 0.4882026 0.4697414 0.4240345
                 24648
                           24649
                                     24650
                                               24651
                                                         24652
                                                                    24653
                                                                              24654
## Cluster 1 0.5893276 0.5443090 0.5620279 0.5567599 0.5987931 0.6130690 0.5679085
## Cluster 2 0.3298886 0.3475630 0.3522199 0.3501437 0.3669765 0.3670293 0.3538944
## Cluster 3 0.5749858 0.5926624 0.5936695 0.5897035 0.6138199 0.6424085 0.6380411
## Cluster 4 0.5528881 0.4850722 0.4678014 0.5105812 0.5148809 0.4830289 0.4915054
## Cluster 5 0.4411897 0.4565345 0.4425603 0.4403534 0.4527328 0.4278319 0.4257241
                           24656
                                                         24659
##
                 24655
                                     24657
                                               24658
                                                                    24660
                                                                              24661
## Cluster 1 0.5729509 0.5763369 0.6134151 0.7101485 0.8180225 1.0783966 1.2838435
## Cluster 2 0.3465894 0.3111466 0.3361085 0.4480616 0.4971408 0.6263138 0.7658416
## Cluster 3 0.6531121 0.6593617 0.7105206 0.7772199 0.8582652 1.0545348 1.1350326
## Cluster 4 0.4730108 0.5100542 0.5446787 0.6448592 0.7755343 0.9635162 1.0536029
## Cluster 5 0.4328922 0.4653750 0.4310388 0.4667845 0.5331897 0.6218578 0.7609569
##
                 24662
                           24663
                                     24664
                                               24665
                                                         24666
                                                                    24667
                                                                              24668
```

```
## Cluster 1 1.3610172 1.3024576 1.2466764 1.1455133 1.1165040 1.0297029 0.9519271
## Cluster 2 0.9177478 1.0266657 1.0710088 1.2443636 1.1748827 1.0915513 1.0712023
## Cluster 3 1.1725972 1.1651149 1.1493177 1.1298142 1.1086340 1.0527319 0.9919177
## Cluster 4 1.0428881 1.0320144 0.9592635 0.9598375 0.9690686 0.8470650 0.8002599
## Cluster 5 0.8557198 0.8962672 0.9065603 0.8601466 0.8414784 0.8402586 0.8610862
                 24669
                                               24672
                                                          24673
##
                           24670
                                     24671
                                                                    24674
                                                                              24675
## Cluster 1 0.9641499 0.8733541 0.8166751 0.6702162 0.5663302 0.4406671 0.3385889
## Cluster 2 1.0800147 0.9391613 0.8757361 0.8324809 0.7132610 0.5589736 0.3838358
## Cluster 3 1.0085319 1.0405092 0.9659390 0.8974156 0.8010213 0.6667277 0.5874610
## Cluster 4 0.8315812 0.7549025 0.6731444 0.6073610 0.5296318 0.4601372 0.3654729
  Cluster 5 0.8887155 0.9186681 0.8796164 0.9395431 0.9122931 0.8775431 0.7175948
                           24677
                                     24678
                                               24679
                 24676
                                                          24680
                                                                    24681
                                                                              24682
## Cluster 1 0.2709138 0.2405066 0.1989881 0.1878170 0.1853223 0.1762281 0.1737745
## Cluster 2 0.2913754 0.2498827 0.2107801 0.1978827 0.1805865 0.1677683 0.1714809
## Cluster 3 0.4734879 0.3677986 0.3088085 0.2815489 0.2625078 0.2448482 0.2384227
## Cluster 4 0.3204404 0.3065487 0.2786318 0.2707220 0.2648989 0.2795993 0.2989170
## Cluster 5 0.6000991 0.5366034 0.4337414 0.3721552 0.3407629 0.3225733 0.3233534
##
                 24683
                           24684
                                     24685
                                               24686
                                                          24687
                                                                    24688
                                                                              24689
## Cluster 1 0.1690385 0.1760451 0.1831711 0.1926698 0.2189403 0.2889735 0.4190597
## Cluster 2 0.1754633 0.1791730 0.1860557 0.2050704 0.2665308 0.3377273 0.4850645
## Cluster 3 0.2311730 0.2206567 0.2311688 0.2359617 0.2681475 0.3203730 0.4003234
## Cluster 4 0.2988484 0.2907004 0.3470578 0.4307256 0.4680939 0.6019964 0.8055162
## Cluster 5 0.3328664 0.3100517 0.2975603 0.3130517 0.3372500 0.3556810 0.4323405
                 24690
                           24691
                                     24692
                                               24693
                                                          24694
                                                                    24695
## Cluster 1 0.5979257 0.6552427 0.6105981 0.6000796 0.6016645 0.5902347 0.5835981
## Cluster 2 0.5387361 0.5582815 0.4685748 0.3739619 0.3598182 0.3306950 0.3717713
## Cluster 3 0.4603957 0.5241333 0.5703461 0.5449248 0.5452553 0.5591163 0.5291163
## Cluster 4 0.9401913 0.8719495 0.6891697 0.6348953 0.6173249 0.5549964 0.5260397
## Cluster 5 0.5684655 0.5703017 0.5411681 0.5018966 0.4479914 0.4229267 0.4620259
##
                 24697
                           24698
                                     24699
                                               24700
                                                          24701
                                                                    24702
                                                                              24703
## Cluster 1 0.5221671 0.4876976 0.4708329 0.4749204 0.5081711 0.5032149 0.5199828
## Cluster 2 0.3195601 0.2966158 0.3327830 0.3373754 0.3425249 0.3472053 0.3591290
## Cluster 3 0.5401234 0.5504511 0.5619830 0.5724426 0.5934142 0.5887702 0.6068823
## Cluster 4 0.4671697 0.5107581 0.5019531 0.4574729 0.4802888 0.4483394 0.4758195
  Cluster 5 0.4608491 0.4175647 0.4273664 0.4402716 0.4683362 0.4333233 0.4302155
                           24705
                                     24706
                                               24707
                                                          24708
                 24704
                                                                    24709
                                                                              24710
## Cluster 1 0.5284271 0.6030544 0.6497812 0.7969218 0.9807042 1.1440411 1.2611830
## Cluster 2 0.3736598 0.3560147 0.4174516 0.4604370 0.6416921 0.7637478 0.8889032
## Cluster 3 0.6206355 0.6456752 0.7185816 0.8500979 1.0368057 1.0726979 1.0780454
## Cluster 4 0.5120975 0.5236823 0.5564368 0.7099097 0.8946462 0.9934296 0.9421227
## Cluster 5 0.3982241 0.4272155 0.4817845 0.5524440 0.6205474 0.7479914 0.8025517
                 24711
                           24712
                                     24713
                                               24714
                                                          24715
                                                                              24717
                                                                    24716
## Cluster 1 1.2365597 1.1397639 1.0960000 1.0348515 1.0147944 0.9426844 0.9387944
## Cluster 2 0.9898211 1.0179824 1.1293666 1.0173167 1.0155484 0.9718328 0.9575455
## Cluster 3 1.1041674 1.1214624 1.1087901 1.0303589 1.0152638 0.9735943 1.0109149
## Cluster 4 0.8991300 0.8430830 0.8559639 0.8295199 0.7527076 0.7934874 0.7879639
## Cluster 5 0.8186940 0.8569871 0.8599052 0.8455000 0.8085560 0.7949957 0.8091078
                           24719
                                     24720
                                                          24722
##
                 24718
                                               24721
                                                                    24723
                                                                              24724
## Cluster 1 0.8454151 0.7905239 0.7170080 0.6272480 0.5498846 0.4493488 0.3370557
## Cluster 2 0.9182287 0.8551965 0.7928299 0.6999062 0.6065953 0.4619560 0.3896422
## Cluster 3 0.9658383 0.9011915 0.8302936 0.7669135 0.6927660 0.6237475 0.5101617
## Cluster 4 0.7129856 0.6929783 0.6004332 0.5348484 0.4800433 0.4295921 0.3670397
## Cluster 5 0.8126724 0.8571681 0.8037414 0.7903190 0.8114397 0.7675905 0.6687328
##
                 24725
                           24726
                                     24727
                                               24728
                                                          24729
                                                                    24730
                                                                              24731
```

```
## Cluster 1 0.2844244 0.2290464 0.2040133 0.2057918 0.1844841 0.1810199 0.1753528
## Cluster 2 0.3152610 0.2609941 0.2472082 0.2230323 0.1950147 0.1850440 0.1760264
## Cluster 3 0.4339362 0.3703518 0.3077929 0.2858667 0.2610142 0.2419745 0.2320950
## Cluster 4 0.3242383 0.2983177 0.2625487 0.2618628 0.2681191 0.2778484 0.2637726
## Cluster 5 0.5784440 0.4996293 0.4135991 0.3800991 0.3606164 0.3372371 0.3088276
                                                          24736
##
                 24732
                           24733
                                     24734
                                               24735
                                                                    24737
                                                                              24738
## Cluster 1 0.1749019 0.1861313 0.1873660 0.1936830 0.2211247 0.2658103 0.3328621
## Cluster 2 0.1766100 0.1835191 0.1855601 0.2088651 0.2206686 0.2638534 0.3411642
## Cluster 3 0.2252312 0.2337759 0.2338553 0.2485135 0.2555277 0.2920071 0.3150965
## Cluster 4 0.2749928 0.3189134 0.3217148 0.3531913 0.3789134 0.5188339 0.6835415
  Cluster 5 0.3020302 0.3076121 0.3072500 0.2952284 0.3049526 0.3289914 0.3645647
                 24739
                           24740
                                     24741
                                               24742
                                                          24743
                                                                    24744
                                                                              24745
## Cluster 1 0.3989085 0.4980305 0.6406684 0.7222082 0.7609430 0.7894483 0.7165279
## Cluster 2 0.3984985 0.4872434 0.5296950 0.5099971 0.5333900 0.5301026 0.5230147
## Cluster 3 0.3806539 0.4346270 0.5106213 0.5865461 0.6231631 0.6494355 0.6672950
## Cluster 4 0.6711083 0.6585993 0.6914801 0.7088339 0.6812238 0.6197437 0.6417473
## Cluster 5 0.3908578 0.4334224 0.4401207 0.4696724 0.5392371 0.4984310 0.5188750
##
                 24746
                           24747
                                     24748
                                               24749
                                                          24750
                                                                    24751
                                                                              24752
## Cluster 1 0.7104828 0.7194602 0.7681724 0.7367255 0.6868621 0.7031618 0.7095729
## Cluster 2 0.5243812 0.5661173 0.5767889 0.5434868 0.5410293 0.5217859 0.5361378
## Cluster 3 0.7038071 0.7143688 0.7414496 0.7470241 0.7169035 0.7315816 0.7599617
## Cluster 4 0.5799819 0.6196968 0.5601444 0.5456931 0.5311877 0.5533863 0.5842671
## Cluster 5 0.5399914 0.5262500 0.5712457 0.5687931 0.5645216 0.5809914 0.5640690
                 24753
                           24754
                                     24755
                                               24756
                                                          24757
                                                                    24758
## Cluster 1 0.6598329 0.7456326 0.8088780 1.0016273 1.1619801 1.2754841 1.235446
## Cluster 2 0.5404106 0.6418299 0.6667625 0.7757214 0.8907185 0.9612933 1.020413
## Cluster 3 0.7920128 0.7919759 0.8648837 1.0228780 1.1262284 1.1630610 1.214031
## Cluster 4 0.6101805 0.6484152 0.7156245 0.8199928 0.9237112 0.9935704 1.032606
## Cluster 5 0.5741207 0.5866078 0.6084914 0.7582931 0.8251983 0.9661121 0.960444
##
                 24760
                           24761
                                     24762
                                               24763
                                                          24764
                                                                    24765
                                                                              24766
## Cluster 1 1.1644841 1.0947666 1.0581220 0.9870438 0.9159045 0.9100040 0.8652294
## Cluster 2 1.0537361 1.1037713 1.0064956 1.0117390 1.0111672 1.0149238 0.9596305
## Cluster 3 1.1955121 1.1862525 1.0990411 1.0249291 1.0032681 1.0144099 0.9379220
## Cluster 4 0.9390686 0.9216498 0.8191913 0.7366715 0.7224296 0.7229892 0.6711372
  Cluster 5 0.9279871 0.9824310 0.9498879 0.8512759 0.8996034 0.8840388 0.8521897
                 24767
                           24768
                                     24769
                                               24770
                                                          24771
                                                                    24772
                                                                              24773
## Cluster 1 0.7872745 0.6942268 0.6111870 0.5080106 0.4123183 0.3264403 0.2879682
## Cluster 2 0.8805894 0.8032375 0.6830059 0.6312639 0.5210029 0.4323900 0.3519003
## Cluster 3 0.8960482 0.8412766 0.7796652 0.7087887 0.5976199 0.4949603 0.4407830
## Cluster 4 0.6094585 0.5389928 0.4937690 0.4613863 0.4156931 0.3836101 0.3754477
## Cluster 5 0.8090690 0.8499655 0.8409784 0.8472241 0.7411638 0.6874914 0.5974784
                 24774
                           24775
                                     24776
                                               24777
                                                          24778
                                                                              24780
                                                                    24779
## Cluster 1 0.2339788 0.2129164 0.2014430 0.1911326 0.1770159 0.1757507 0.1739536
## Cluster 2 0.2968035 0.2500411 0.2289912 0.2081349 0.1867507 0.1901496 0.1782551
## Cluster 3 0.3875348 0.3390610 0.3081390 0.2853617 0.2751915 0.2627404 0.2446227
## Cluster 4 0.3451516 0.2948953 0.3012130 0.3006534 0.2897834 0.2810000 0.2862419
## Cluster 5 0.5012759 0.4612500 0.4100603 0.3773405 0.3503405 0.3293491 0.3116250
                           24782
                                     24783
                                               24784
                                                          24785
##
                 24781
                                                                    24786
                                                                              24787
## Cluster 1 0.1689350 0.1730424 0.1801870 0.1986658 0.2296804 0.2662798 0.3534642
## Cluster 2 0.1780352 0.1806422 0.1937478 0.2053226 0.2377947 0.2662815 0.3231349
## Cluster 3 0.2409589 0.2361560 0.2432142 0.2547830 0.2798894 0.2935376 0.3234000
## Cluster 4 0.3079675 0.3149675 0.3372744 0.3838809 0.4429603 0.5294549 0.5909314
## Cluster 5 0.2994871 0.3195560 0.3091250 0.3022500 0.3171853 0.3296379 0.3804052
##
                 24788
                           24789
                                     24790
                                               24791
                                                          24792
                                                                    24793
                                                                              24794
```

```
## Cluster 1 0.4876658 0.5923753 0.7303050 0.8142427 0.8376923 0.8330782 0.8544085
## Cluster 2 0.3940176 0.4547683 0.5514135 0.5339267 0.5908123 0.5651906 0.6218710
## Cluster 3 0.3825348 0.4466624 0.5371943 0.6306879 0.6855688 0.7522610 0.7723291
## Cluster 4 0.6496101 0.6738520 0.6850650 0.6944440 0.6817834 0.6763538 0.6828809
## Cluster 5 0.4222759 0.4173836 0.4985690 0.5496681 0.5028621 0.5697241 0.5996940
                 24795
                           24796
                                               24798
                                                          24799
                                                                    24800
##
                                     24797
                                                                              24801
## Cluster 1 0.8835557 0.8758634 0.8646326 0.8813714 0.8095279 0.7778448 0.7723196
## Cluster 2 0.5937742 0.5835279 0.5939238 0.6389883 0.5565513 0.6208182 0.6760059
## Cluster 3 0.8247617 0.8880752 0.9001319 0.9169858 0.8942142 0.8552738 0.8524809
## Cluster 4 0.7444910 0.6242996 0.6425307 0.6593646 0.6381372 0.6283971 0.7028556
  Cluster 5 0.5665431 0.5119655 0.5432069 0.5538664 0.5768362 0.5125431 0.5406810
                           24803
                 24802
                                     24804
                                               24805
                                                          24806
                                                                    24807
                                                                              24808
## Cluster 1 0.8548382 0.9403674 1.0567440 1.1730385 1.2617666 1.3032414 1.2372361
## Cluster 2 0.5900235 0.6428182 0.8438123 0.9562845 1.0589326 1.1820587 1.2462229
## Cluster 3 0.8875504 0.9092851 1.0890709 1.0887376 1.0540553 1.1196270 1.1580624
## Cluster 4 0.7240722 0.8053213 0.9607148 0.9754549 1.0222094 0.9327762 0.9530614
## Cluster 5 0.5425819 0.6153707 0.6852759 0.7977328 0.8816724 0.8892672 0.9007241
##
                 24809
                           24810
                                     24811
                                               24812
                                                          24813
                                                                    24814
                                                                              24815
## Cluster 1 1.1610424 1.1225027 1.0483846 0.9547321 0.9302825 0.9224072 0.8290464
## Cluster 2 1.2140293 1.1724839 1.1072522 1.0609296 1.0030147 1.0195367 0.9242551
## Cluster 3 1.1161787 1.0635390 0.9911915 0.9633759 0.9427291 1.0315206 0.9495064
## Cluster 4 0.9280253 0.8895957 0.8031336 0.7649350 0.7803899 0.7885054 0.7245523
## Cluster 5 0.9661336 0.8694267 0.8542672 0.8941293 0.8509181 0.9408922 0.9161121
                 24816
                           24817
                                     24818
                                               24819
                                                          24820
                                                                    24821
## Cluster 1 0.7067281 0.5926870 0.4616963 0.3509363 0.2738820 0.2292016 0.1991777
## Cluster 2 0.8686393 0.7202581 0.5639326 0.4204223 0.3237889 0.2436804 0.2240205
## Cluster 3 0.8968979 0.8098099 0.6766879 0.5742567 0.4377716 0.3793177 0.3136624
## Cluster 4 0.6126606 0.5183069 0.4139134 0.3583105 0.3173430 0.2766137 0.2537581
## Cluster 5 0.8934957 0.9063448 0.8449267 0.7339741 0.5837457 0.4895259 0.4047845
##
                 24823
                           24824
                                     24825
                                               24826
                                                          24827
                                                                    24828
                                                                              24829
## Cluster 1 0.1892971 0.1859019 0.1802825 0.1741154 0.1738859 0.1832029 0.1858236
## Cluster 2 0.2029853 0.1835249 0.1728240 0.1758475 0.1886804 0.1820938 0.1926334
## Cluster 3 0.2787801 0.2531759 0.2385887 0.2333092 0.2298298 0.2283404 0.2321121
## Cluster 4 0.2371444 0.2525848 0.2535740 0.2639531 0.2605632 0.2959025 0.3352310
## Cluster 5 0.3576509 0.3369655 0.3290690 0.3310991 0.3196767 0.2987241 0.3123147
                 24830
                           24831
                                     24832
                                               24833
                                                          24834
                                                                    24835
                                                                              24836
## Cluster 1 0.1846353 0.2038488 0.2598037 0.4053302 0.6259655 0.7018117 0.6450332
## Cluster 2 0.1888563 0.2792962 0.3703138 0.4878680 0.5381026 0.5984018 0.5023959
## Cluster 3 0.2450326 0.2721872 0.3109816 0.3939830 0.4897064 0.5617376 0.5413730
## Cluster 4 0.3858628 0.4568773 0.6563032 0.8478339 0.9669025 0.7756137 0.6841949
## Cluster 5 0.3480043 0.3403879 0.3539526 0.4602629 0.5563276 0.5854569 0.5176810
                 24837
                           24838
                                     24839
                                               24840
                                                          24841
                                                                    24842
                                                                              24843
## Cluster 1 0.5959602 0.5979615 0.5975570 0.5732347 0.5571101 0.5210411 0.5125119
## Cluster 2 0.3525689 0.3527361 0.3462522 0.3245982 0.3065894 0.2918035 0.2920264
## Cluster 3 0.5061844 0.5159887 0.5384383 0.5753830 0.5397149 0.5556312 0.5635688
## Cluster 4 0.6149278 0.5113971 0.5030939 0.5412094 0.4851769 0.4160505 0.4394079
## Cluster 5 0.4515647 0.4155388 0.4131983 0.4401336 0.4283534 0.4344612 0.4008103
##
                 24844
                           24845
                                     24846
                                               24847
                                                          24848
                                                                    24849
                                                                              24850
## Cluster 1 0.5397785 0.5656286 0.5375862 0.5242480 0.5441499 0.6088422 0.7005438
## Cluster 2 0.3070821 0.3055191 0.2912287 0.3396246 0.3511701 0.3584897 0.4129765
## Cluster 3 0.6177362 0.6470667 0.6055177 0.6014326 0.5725305 0.6752213 0.7769475
## Cluster 4 0.4903574 0.5162563 0.5160397 0.5202130 0.4876968 0.5456534 0.6155199
## Cluster 5 0.4157457 0.4318664 0.4213190 0.3986034 0.4294397 0.4461552 0.4874138
##
                 24851
                           24852
                                     24853
                                               24854
                                                          24855
                                                                    24856
                                                                              24857
```

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## Cluster 1 0.8344191 1.0893992 1.3141379 1.3756989 1.3408395 1.2290279 1.2201552
## Cluster 2 0.4914839 0.6386950 0.7790792 0.9011114 1.0549707 1.1384282 1.1819413
## Cluster 3 0.8974738 1.0989149 1.1188681 1.1688085 1.2102411 1.1828865 1.1794099
## Cluster 4 0.8089856 0.9189819 0.9528267 1.0024440 0.9970866 0.9219314 0.9279783
## Cluster 5 0.5186207 0.6285948 0.8190819 0.9043534 0.8812888 0.8208534 0.8743750
                 24858
                           24859
                                                          24862
                                                                    24863
##
                                     24860
                                               24861
                                                                              24864
## Cluster 1 1.1720769 1.0924642 1.0638501 1.0263581 0.9584987 0.8667480 0.7122546
## Cluster 2 1.2734370 1.2561935 1.1870792 1.1952375 1.1173021 0.9877742 0.9147625
## Cluster 3 1.1102270 1.0939348 1.0541716 1.0495376 0.9641816 0.9607418 0.9001362
## Cluster 4 0.8699422 0.8331805 0.7654765 0.7814477 0.7650542 0.7010072 0.6337401
  Cluster 5 0.9020819 0.8528534 0.8612371 0.8754698 0.8942931 0.9647672 0.9360086
                 24865
                           24866
                                     24867
                                               24868
                                                          24869
                                                                    24870
                                                                              24871
## Cluster 1 0.5953329 0.4586220 0.3344788 0.2729019 0.2133899 0.1880623 0.1737427
## Cluster 2 0.7488768 0.5713900 0.3844164 0.2938622 0.2317889 0.2047683 0.1982170
## Cluster 3 0.7835745 0.6980865 0.5791206 0.4596099 0.3688383 0.2941830 0.2600582
## Cluster 4 0.5353863 0.4338231 0.3669819 0.3047076 0.2896101 0.2711913 0.2503899
## Cluster 5 0.9030776 0.8856810 0.7481595 0.6169052 0.5021509 0.3937586 0.3460690
##
                 24872
                           24873
                                     24874
                                               24875
                                                          24876
                                                                    24877
                                                                              24878
## Cluster 1 0.1738369 0.1666446 0.1660676 0.1726326 0.1698236 0.1727679 0.1840995
## Cluster 2 0.1795161 0.1769589 0.1741994 0.1799384 0.1779736 0.1794516 0.1974399
## Cluster 3 0.2435560 0.2323461 0.2255163 0.2240241 0.2168879 0.2228440 0.2321816
## Cluster 4 0.2553285 0.2627690 0.2787220 0.2648736 0.2614368 0.3169711 0.3566101
## Cluster 5 0.3339440 0.3269310 0.3039871 0.2890948 0.2763922 0.2698190 0.2858664
                 24879
                           24880
                                     24881
                                               24882
                                                          24883
                                                                    24884
## Cluster 1 0.2108395 0.2745464 0.4524987 0.6637997 0.6971207 0.6476592 0.6250902
## Cluster 2 0.3018827 0.3679179 0.5052933 0.5594487 0.5653754 0.4776628 0.3775865
## Cluster 3 0.2586270 0.2757305 0.3881291 0.4968539 0.5423035 0.5415645 0.5026440
## Cluster 4 0.4136137 0.5949242 0.8205523 0.9590686 0.8244007 0.6127220 0.5085307
## Cluster 5 0.3491164 0.3553750 0.4470991 0.4791767 0.5546767 0.4742500 0.4312198
##
                 24886
                           24887
                                     24888
                                               24889
                                                          24890
                                                                    24891
                                                                              24892
## Cluster 1 0.6106790 0.5437666 0.5242414 0.5073011 0.4637016 0.4760424 0.4974218
## Cluster 2 0.3301320 0.3293196 0.2886452 0.2866393 0.3191525 0.2776628 0.3250059
## Cluster 3 0.4660397 0.5074681 0.5209007 0.5207390 0.5044879 0.5201688 0.5412000
## Cluster 4 0.5384729 0.4776173 0.4414188 0.3909097 0.4046029 0.4594260 0.4438845
## Cluster 5 0.3846336 0.3763017 0.3557112 0.3725216 0.4289612 0.4070086 0.3666293
                                               24896
                           24894
                                                          24897
                 24893
                                     24895
                                                                    24898
                                                                              24899
## Cluster 1 0.5254297 0.5281353 0.4875995 0.5456141 0.5931379 0.6557679 0.7800809
## Cluster 2 0.3643226 0.3070293 0.3063548 0.3043900 0.3015630 0.3577713 0.4160528
## Cluster 3 0.6019574 0.6048170 0.6082085 0.6060241 0.6895106 0.7530993 0.8630028
## Cluster 4 0.4278953 0.4800000 0.5040108 0.4965740 0.4978484 0.5878159 0.7437509
## Cluster 5 0.3604828 0.3746164 0.3832026 0.4072586 0.4379353 0.4279655 0.5865517
                 24900
                           24901
                                     24902
                                               24903
                                                          24904
                                                                    24905
                                                                              24906
## Cluster 1 1.0654058 1.2532188 1.3676830 1.3419801 1.2201698 1.1811698 1.1736459
## Cluster 2 0.5736833 0.7850762 0.9455220 1.0554721 1.1970792 1.2391701 1.2282082
## Cluster 3 1.0851220 1.1614582 1.2108241 1.1903972 1.1795433 1.1210879 1.1060397
## Cluster 4 0.8617798 0.9867112 1.0011408 0.9406282 0.9308051 0.8980578 0.9194838
## Cluster 5 0.6449698 0.7495000 0.8258233 0.8926983 0.9041336 0.8990000 0.8484353
                           24908
                                     24909
##
                 24907
                                               24910
                                                          24911
                                                                    24912
                                                                              24913
## Cluster 1 1.1143886 1.0945027 1.0461340 0.9899191 0.8661910 0.7300279 0.5911936
## Cluster 2 1.2631613 1.2964897 1.2356246 1.1201378 1.0769531 0.9434457 0.7620176
## Cluster 3 1.0967660 1.0426071 1.0611617 1.0371915 0.9730567 0.8705546 0.7752170
## Cluster 4 0.8771588 0.8410830 0.8442888 0.7715668 0.7458123 0.6551805 0.5621552
## Cluster 5 0.8190172 0.8789052 0.9068534 0.8985086 0.9228534 0.8593319 0.8731250
##
                 24914
                           24915
                                     24916
                                               24917
                                                          24918
                                                                    24919
                                                                              24920
```

```
## Cluster 1 0.4646233 0.3481538 0.2632997 0.2295424 0.1925902 0.1800809 0.1735968
## Cluster 2 0.5782346 0.4268211 0.3342405 0.2415103 0.2134311 0.1922023 0.1716129
## Cluster 3 0.6587248 0.5435787 0.4544823 0.3536851 0.3046454 0.2566936 0.2419645
## Cluster 4 0.4623394 0.3654296 0.3194801 0.2966931 0.2902022 0.2736931 0.2834332
## Cluster 5 0.8160603 0.7327371 0.5832414 0.4988362 0.4160216 0.3925431 0.3377543
                 24921
                           24922
                                     24923
                                               24924
                                                         24925
                                                                    24926
##
                                                                              24927
## Cluster 1 0.1681048 0.1704058 0.1661485 0.1734788 0.1879867 0.1869350 0.2183528
## Cluster 2 0.1613842 0.1698768 0.1841349 0.1709912 0.1767302 0.2074370 0.2712258
## Cluster 3 0.2337730 0.2266667 0.2303262 0.2281986 0.2358270 0.2401305 0.2636922
## Cluster 4 0.2804440 0.2903032 0.2946282 0.3013502 0.3497653 0.4312816 0.5346606
  Cluster 5 0.3099655 0.2985991 0.2801293 0.2787974 0.2756034 0.2834526 0.3047672
                           24929
                                     24930
                                               24931
                 24928
                                                         24932
                                                                    24933
                                                                              24934
## Cluster 1 0.2775557 0.4431432 0.6492918 0.7084244 0.6599443 0.6096300 0.5911286
## Cluster 2 0.3474839 0.4995425 0.5832522 0.5883754 0.4622463 0.3702551 0.3624223
## Cluster 3 0.3091631 0.4210823 0.4933773 0.5771504 0.5970780 0.5687915 0.5353887
## Cluster 4 0.6818845 0.8797329 0.9761083 0.8518375 0.6798989 0.6023249 0.5529856
## Cluster 5 0.3242672 0.4077414 0.5197241 0.5527328 0.5198103 0.4793362 0.4166078
##
                 24935
                           24936
                                     24937
                                               24938
                                                         24939
                                                                    24940
                                                                              24941
## Cluster 1 0.5263727 0.5383156 0.4883594 0.5008329 0.5080756 0.5229987 0.5696512
## Cluster 2 0.3578240 0.3426041 0.3339883 0.3147859 0.3199560 0.3194897 0.3276217
## Cluster 3 0.5427220 0.5254511 0.5288752 0.5258709 0.5592823 0.5879078 0.6667206
## Cluster 4 0.5097256 0.4415199 0.4474477 0.4267292 0.4379422 0.4778123 0.4855415
## Cluster 5 0.4351983 0.3899095 0.3824267 0.4008491 0.3886767 0.4217371 0.4073621
                 24942
                           24943
                                     24944
                                               24945
                                                         24946
                                                                    24947
## Cluster 1 0.5497480 0.5428276 0.5261088 0.6059456 0.6622175 0.7998952 0.9879881
## Cluster 2 0.3272786 0.3367977 0.3274545 0.3743343 0.4220792 0.5382698 0.6422346
## Cluster 3 0.6382043 0.6118340 0.6136709 0.7318596 0.8118567 0.9371546 1.1120426
## Cluster 4 0.4915415 0.4928123 0.5248520 0.5487220 0.6749531 0.8079531 0.9561805
## Cluster 5 0.3964871 0.3969655 0.4162500 0.4270862 0.4515172 0.5373793 0.6456250
                 24949
                           24950
                                     24951
                                               24952
                                                         24953
                                                                    24954
                                                                              24955
## Cluster 1 1.1967294 1.2815385 1.2347679 1.1642798 1.1874668 1.1311737 1.0841592
## Cluster 2 0.7779531 0.8983900 1.0523548 1.0895279 1.1241349 1.1922991 1.1573196
## Cluster 3 1.1126270 1.1350922 1.1305518 1.0931716 1.1601163 1.1673191 1.1358057
## Cluster 4 0.9861697 0.9774982 0.9951480 0.9217040 0.9500217 0.8950072 0.8520361
## Cluster 5 0.7285172 0.7474267 0.8218793 0.8745733 0.9358060 0.9076121 0.8966250
                                     24958
                                               24959
                 24956
                           24957
                                                         24960
                                                                    24961
## Cluster 1 1.0449005 1.0345862 0.9160729 0.8197440 0.7117374 0.5848183 0.4787188
## Cluster 2 1.1609091 1.1184633 1.0891261 0.9913284 0.8598182 0.7250528 0.5677947
## Cluster 3 1.0702184 1.0295489 1.0319291 0.9971901 0.9044170 0.7933106 0.6744638
## Cluster 4 0.8097545 0.7774477 0.7327040 0.6452310 0.6238773 0.5425271 0.4833682
## Cluster 5 0.8675345 0.8563017 0.8921552 0.8510302 0.8242586 0.8465647 0.8703793
                 24963
                           24964
                                     24965
                                               24966
                                                         24967
                                                                              24969
                                                                    24968
## Cluster 1 0.3282241 0.2651525 0.2150928 0.1847268 0.1713952 0.1724310 0.1620053
## Cluster 2 0.4229677 0.3331144 0.2607214 0.2055718 0.1917038 0.1739883 0.1677390
## Cluster 3 0.5347560 0.4209305 0.3464213 0.3045830 0.2732823 0.2514085 0.2379376
## Cluster 4 0.3895993 0.3494260 0.3124838 0.2758556 0.2511625 0.2562166 0.2671119
## Cluster 5 0.7194267 0.5648534 0.5163621 0.3801121 0.3533103 0.3314784 0.3350431
##
                 24970
                           24971
                                     24972
                                               24973
                                                         24974
                                                                    24975
                                                                              24976
## Cluster 1 0.1624987 0.1631857 0.1622785 0.1822241 0.1835504 0.2110928 0.2757334
## Cluster 2 0.1665689 0.1717009 0.1668152 0.1769707 0.1846891 0.2829150 0.3493255
## Cluster 3 0.2291050 0.2221702 0.2207390 0.2342936 0.2371333 0.2574851 0.3026411
## Cluster 4 0.2639639 0.2689819 0.2752130 0.2965451 0.3819531 0.4882924 0.6433394
## Cluster 5 0.3247414 0.2969914 0.2718621 0.2803922 0.3073707 0.3040388 0.3313491
##
                 24977
                           24978
                                     24979
                                               24980
                                                         24981
                                                                    24982
                                                                              24983
```

```
## Cluster 1 0.4284483 0.6595703 0.6968024 0.6505796 0.6285358 0.6175504 0.5777613
## Cluster 2 0.4699853 0.5502727 0.6155396 0.4821613 0.3463519 0.3188563 0.3472493
## Cluster 3 0.4057957 0.4986553 0.5933901 0.5996950 0.5492468 0.5231348 0.5435050
## Cluster 4 0.8574116 0.9829928 0.7645018 0.6405921 0.5557617 0.4833394 0.5038087
## Cluster 5 0.4328621 0.4930948 0.5175862 0.4954957 0.4999052 0.4978534 0.4330345
                 24984
                           24985
                                                          24988
                                                                    24989
##
                                     24986
                                               24987
                                                                              24990
## Cluster 1 0.5433316 0.5147440 0.4354788 0.4981393 0.5415584 0.5418462 0.5193793
## Cluster 2 0.3357801 0.3030674 0.2871935 0.2898152 0.2999003 0.3159648 0.3024663
## Cluster 3 0.5307887 0.5178965 0.4983504 0.5162596 0.5827617 0.6285660 0.5566525
## Cluster 4 0.4763105 0.4320830 0.4224838 0.4257076 0.4668700 0.4759603 0.4879892
  Cluster 5 0.4306509 0.4157284 0.3612759 0.4024957 0.3777716 0.3786724 0.4079310
                           24992
                                     24993
                 24991
                                               24994
                                                          24995
                                                                    24996
                                                                              24997
## Cluster 1 0.5104801 0.5168276 0.5697122 0.6356565 0.7641154 0.9543912 1.1748117
## Cluster 2 0.2948974 0.3036510 0.3067214 0.3412023 0.4341672 0.5675308 0.6933636
## Cluster 3 0.5625433 0.5996284 0.6592596 0.7580496 0.8210227 0.9974482 1.0965730
## Cluster 4 0.4742058 0.4807112 0.5506173 0.5708014 0.7230686 0.8691552 1.0320975
## Cluster 5 0.4186164 0.4285991 0.4420862 0.4949914 0.5022802 0.5791379 0.6996681
##
                 24998
                           24999
                                     25000
                                               25001
                                                         25002
                                                                   25003
                                                                             25004
## Cluster 1 1.2924098 1.2719987 1.2038435 1.1526883 1.146796 1.0927175 1.0265093
## Cluster 2 0.8841701 1.0076657 1.0543900 1.1501994 1.185343 1.1542287 1.0931789
## Cluster 3 1.1285801 1.1228071 1.1217631 1.0783319 1.041867 1.0622865 1.0012511
## Cluster 4 1.0404910 1.0423430 0.9733249 0.9736173 0.921639 0.8550036 0.9069531
## Cluster 5 0.7875603 0.8472759 0.8979698 0.9324526 0.855625 0.8794612 0.8425819
                 25005
                           25006
                                     25007
                                               25008
                                                          25009
                                                                    25010
## Cluster 1 1.0040133 0.9396167 0.8741578 0.7490252 0.6062347 0.4704668 0.3486273
## Cluster 2 1.1446716 1.0795249 1.0337977 0.9379941 0.7627683 0.5905249 0.4128299
## Cluster 3 1.0226681 0.9983319 0.9904950 0.8913262 0.8009816 0.7001390 0.5842511
## Cluster 4 0.8828267 0.7986823 0.6889458 0.6162166 0.5161877 0.4423682 0.3999675
## Cluster 5 0.8408190 0.8874483 0.9564828 0.8801638 0.8832371 0.8012457 0.7391422
##
                 25012
                           25013
                                     25014
                                               25015
                                                          25016
                                                                    25017
                                                                              25018
## Cluster 1 0.2744456 0.2214098 0.1902719 0.1829324 0.1821499 0.1733992 0.1743369
## Cluster 2 0.3222258 0.2553372 0.2304487 0.2008211 0.1938622 0.1826686 0.1866393
## Cluster 3 0.4682567 0.3821645 0.3111489 0.2883489 0.2644879 0.2599333 0.2439801
## Cluster 4 0.3250253 0.3150578 0.2889170 0.2651191 0.2530361 0.2711805 0.2772527
## Cluster 5 0.5975431 0.5718621 0.4606336 0.4059655 0.3593362 0.3535431 0.3553578
                           25020
                                     25021
                                               25022
                                                          25023
                 25019
                                                                    25024
                                                                              25025
## Cluster 1 0.1765000 0.1784788 0.1820782 0.1879443 0.2236313 0.2701207 0.4553263
## Cluster 2 0.1893754 0.1869736 0.1865894 0.2126334 0.2870205 0.3167918 0.4607243
## Cluster 3 0.2447149 0.2399220 0.2470539 0.2549305 0.2886227 0.3017574 0.3888780
## Cluster 4 0.3175090 0.3041949 0.3368736 0.3936895 0.4336931 0.6238809 0.7802347
## Cluster 5 0.3556078 0.3299095 0.3191983 0.3296638 0.3521379 0.4052888 0.4871983
                 25026
                           25027
                                     25028
                                               25029
                                                          25030
                                                                    25031
                                                                              25032
## Cluster 1 0.6264138 0.6973793 0.6650252 0.6183249 0.6571220 0.6357560 0.5933833
## Cluster 2 0.5704927 0.6235103 0.5329619 0.4078035 0.3504927 0.3271202 0.3318328
## Cluster 3 0.4976596 0.5573560 0.5670539 0.5406383 0.5626000 0.6137645 0.6256213
## Cluster 4 0.9169386 0.8900397 0.7441444 0.6166354 0.5751264 0.5584838 0.4937292
## Cluster 5 0.5610517 0.5345560 0.5627457 0.4776595 0.4222888 0.4146853 0.4163276
                           25034
                                     25035
                                               25036
##
                 25033
                                                          25037
                                                                    25038
                                                                              25039
## Cluster 1 0.5883833 0.5327056 0.5168196 0.5471127 0.5760637 0.5630955 0.5475995
## Cluster 2 0.3123783 0.2926774 0.2891554 0.3538974 0.3269501 0.2980528 0.2943607
## Cluster 3 0.5878340 0.5907106 0.6102993 0.6493064 0.6442950 0.6341447 0.6509021
## Cluster 4 0.4788700 0.4755704 0.5013538 0.4835379 0.5380000 0.4938267 0.4979675
## Cluster 5 0.4605345 0.4033319 0.3864612 0.4030776 0.4292112 0.4039224 0.4018017
##
                 25040
                           25041
                                     25042
                                               25043
                                                          25044
                                                                    25045
                                                                              25046
```

```
## Cluster 1 0.5709801 0.6027374 0.6996552 0.7963236 0.9914841 1.2328568 1.3573130
## Cluster 2 0.3224487 0.3142639 0.4005894 0.5280821 0.6583402 0.8177419 0.9304311
## Cluster 3 0.6668156 0.6761730 0.7512312 0.9041759 1.0848851 1.1498879 1.2150709
## Cluster 4 0.5706570 0.5325776 0.6385235 0.7503177 0.9015271 1.0263899 1.0316606
## Cluster 5 0.4460474 0.4149871 0.4704871 0.5540603 0.6343534 0.7518405 0.8376509
                           25048
                                                          25051
                                                                    25052
##
                 25047
                                     25049
                                               25050
                                                                              25053
## Cluster 1 1.3305358 1.2180345 1.1672122 1.1580279 1.1180557 1.0785438 1.0297095
## Cluster 2 1.0459003 1.1877038 1.1699707 1.1438944 1.1154927 1.1428915 1.1385161
## Cluster 3 1.2366624 1.1551574 1.1379773 1.1067461 1.0763404 1.0559206 1.0753915
## Cluster 4 1.0386029 1.0015235 1.0140289 0.9054477 0.8803321 0.8717292 0.8592816
  Cluster 5 0.9186552 0.9457241 0.9325259 0.9021897 0.8771379 0.8624828 0.8927414
                           25055
                                               25057
                 25054
                                     25056
                                                          25058
                                                                    25059
                                                                              25060
## Cluster 1 0.9727958 0.8642944 0.7805093 0.7018621 0.6123674 0.4719496 0.3563700
## Cluster 2 1.0702845 0.9510411 0.9253255 0.8223724 0.7052581 0.5070293 0.3822581
## Cluster 3 1.0272709 0.9477064 0.8919915 0.8847787 0.7928894 0.6956652 0.5618652
## Cluster 4 0.7803213 0.7448881 0.7204621 0.6815848 0.5755668 0.5089711 0.4069314
## Cluster 5 0.9206336 0.9201724 0.9497586 0.9404784 0.9718621 0.8127974 0.7211897
##
                 25061
                           25062
                                     25063
                                               25064
                                                          25065
                                                                    25066
                                                                              25067
## Cluster 1 0.2940716 0.2447732 0.2330729 0.2123369 0.1967639 0.1948714 0.1900995
## Cluster 2 0.3390352 0.2863050 0.2536481 0.2239560 0.2105337 0.1981994 0.1957126
## Cluster 3 0.4769702 0.3869801 0.3375730 0.3034794 0.2862539 0.2686355 0.2574057
## Cluster 4 0.3629206 0.3311300 0.2910072 0.2899675 0.2917148 0.3101661 0.3008881
## Cluster 5 0.6352241 0.5167759 0.4666552 0.4181422 0.4033233 0.3977198 0.3630086
                 25068
                           25069
                                     25070
                                               25071
                                                          25072
                                                                    25073
## Cluster 1 0.1906790 0.1988117 0.1977361 0.2038806 0.2288130 0.2705570 0.3117334
## Cluster 2 0.1997771 0.2079971 0.2196246 0.2287595 0.2421935 0.3248768 0.3474633
## Cluster 3 0.2453206 0.2476780 0.2524170 0.2563121 0.2662511 0.3005830 0.3272610
## Cluster 4 0.2870505 0.3436606 0.3583502 0.3651372 0.4187473 0.5222455 0.6054729
## Cluster 5 0.3336595 0.3223017 0.3505948 0.3488190 0.3596983 0.3664957 0.3992500
##
                 25075
                           25076
                                     25077
                                               25078
                                                          25079
                                                                    25080
                                                                              25081
## Cluster 1 0.3895093 0.5200451 0.6348276 0.7795013 0.8121419 0.8290106 0.8015690
## Cluster 2 0.4305543 0.4688299 0.5382023 0.5488798 0.5814311 0.5920411 0.6514399
## Cluster 3 0.3734709 0.4290028 0.5117376 0.5737660 0.6666128 0.7462539 0.8167362
## Cluster 4 0.6914440 0.7674693 0.7432635 0.6739892 0.6854332 0.7492563 0.7374621
  Cluster 5 0.4565129 0.4577629 0.4786595 0.5559655 0.4975086 0.5904569 0.5616293
                                     25084
                                               25085
                                                          25086
                 25082
                           25083
                                                                    25087
                                                                              25088
## Cluster 1 0.7775915 0.8284629 0.8640318 0.8200186 0.8379828 0.7802905 0.7233594
## Cluster 2 0.6230587 0.6540850 0.5907683 0.5794692 0.6364516 0.6590381 0.6435015
## Cluster 3 0.7984099 0.8347901 0.8768752 0.8588099 0.8690567 0.8712071 0.8282340
## Cluster 4 0.6931264 0.6692058 0.6673032 0.6687401 0.6776931 0.6663213 0.6791264
## Cluster 5 0.5935647 0.6234353 0.6593319 0.6332500 0.5975862 0.5835216 0.6022974
                 25089
                           25090
                                     25091
                                               25092
                                                          25093
                                                                    25094
                                                                              25095
## Cluster 1 0.7624642 0.7864363 0.8897109 1.0591512 1.2988634 1.4411777 1.4019469
## Cluster 2 0.6225777 0.7062141 0.7411173 0.9019560 1.0005220 1.1518622 1.1529531
## Cluster 3 0.8643972 0.9297206 1.0128681 1.1242156 1.2093277 1.3008340 1.2931844
## Cluster 4 0.7142960 0.7229892 0.7814801 0.8968123 0.9679639 1.0553141 1.0094296
## Cluster 5 0.5990819 0.5525991 0.6374914 0.7243836 0.8496983 0.9370302 0.9786379
                           25097
                                     25098
                                               25099
                                                          25100
##
                 25096
                                                                    25101
                                                                              25102
## Cluster 1 1.3300782 1.2786605 1.1738700 1.1400199 1.0933236 1.0311021 0.9698143
## Cluster 2 1.3070088 1.2447243 1.1367273 1.0982405 1.0969384 1.1076334 1.0166452
## Cluster 3 1.2600397 1.2138837 1.2243305 1.1964553 1.1638440 1.1313106 1.0477248
## Cluster 4 0.9590108 0.9813285 0.8959422 0.9117004 0.8655957 0.8594079 0.8039639
## Cluster 5 0.9927888 0.9125862 0.9587672 0.9353966 0.9384353 0.9783922 0.9557802
                                                          25107
##
                 25103
                           25104
                                     25105
                                               25106
                                                                    25108
                                                                              25109
```

```
## Cluster 1 0.8943966 0.8037745 0.7038767 0.5967188 0.4702374 0.3626273 0.3081141
## Cluster 2 0.9777742 0.9302551 0.8244751 0.6689501 0.5661320 0.4692141 0.3893460
## Cluster 3 1.0085362 0.9262298 0.8319773 0.7756468 0.6485121 0.5617631 0.4955504
## Cluster 4 0.7333863 0.6897617 0.6239422 0.5450253 0.4860830 0.4014116 0.4026065
## Cluster 5 0.9447155 0.9200905 0.8934397 0.8920129 0.7697155 0.6876897 0.6160690
                                                          25114
##
                 25110
                           25111
                                     25112
                                               25113
                                                                    25115
## Cluster 1 0.2716406 0.2447679 0.2274523 0.2163143 0.2062454 0.2008488 0.1962533
## Cluster 2 0.3203284 0.2793812 0.2517654 0.2395924 0.2194457 0.2135689 0.2044399
## Cluster 3 0.4149262 0.3629674 0.3504454 0.3057206 0.2948142 0.2750723 0.2608752
## Cluster 4 0.3535271 0.3414874 0.3211625 0.3297365 0.3186245 0.3070000 0.2998592
  Cluster 5 0.5285431 0.4668491 0.4217155 0.4079914 0.3807802 0.3521638 0.3420086
                           25118
                                     25119
                                               25120
                 25117
                                                          25121
                                                                    25122
                                                                              25123
## Cluster 1 0.2030146 0.2055544 0.2168528 0.2433581 0.2779350 0.2980690 0.3645106
## Cluster 2 0.2173695 0.2257947 0.2386129 0.2528446 0.2959326 0.3079267 0.3548974
## Cluster 3 0.2583206 0.2512241 0.2591149 0.2690965 0.2838681 0.2979191 0.3378894
## Cluster 4 0.3517834 0.3848917 0.3826390 0.4067653 0.4731986 0.5780722 0.6317581
## Cluster 5 0.3122974 0.3108448 0.3165819 0.3421810 0.3675776 0.4023190 0.3980259
##
                 25124
                           25125
                                     25126
                                               25127
                                                          25128
                                                                    25129
                                                                              25130
## Cluster 1 0.4828064 0.5982414 0.7375239 0.8321618 0.9105318 0.9342626 0.9962931
## Cluster 2 0.4023079 0.4872933 0.5620528 0.5728974 0.6280528 0.6772903 0.7187038
## Cluster 3 0.4046596 0.5080979 0.5591645 0.6780043 0.7797716 0.8107277 0.8289106
## Cluster 4 0.7016426 0.7517690 0.7616534 0.8070542 0.8444549 0.8382058 0.8533249
## Cluster 5 0.4125216 0.4628793 0.5306164 0.5696983 0.5720474 0.6192931 0.5973017
                 25131
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                                     25133
                                               25134
                                                          25135
                                                                    25136
## Cluster 1 0.9632069 0.9785836 0.9291021 0.9430557 0.8996684 0.8055119 0.8271180
## Cluster 2 0.6979062 0.7145513 0.7063607 0.6708974 0.6058475 0.6511437 0.6809062
## Cluster 3 0.9108057 0.9566000 0.9986723 0.9232057 0.9150397 0.8550780 0.9051163
## Cluster 4 0.8476462 0.8617762 0.8521625 0.7720830 0.8542671 0.7987220 0.7731697
## Cluster 5 0.6102586 0.6723922 0.7147716 0.7187759 0.6773405 0.6907672 0.6545560
##
                 25138
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                                     25140
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## Cluster 1 0.8724973 0.9597149 1.0766207 1.278578 1.348581 1.312123 1.245690
## Cluster 2 0.7192170 0.7236246 0.8393754 1.036751 1.077449 1.194501 1.283279
## Cluster 3 0.8823943 0.9289801 1.0696227 1.171521 1.227757 1.260774 1.226526
## Cluster 4 0.7721336 0.8642780 1.0336787 1.088729 1.126144 1.175162 1.113603
## Cluster 5 0.6599569 0.7394267 0.8449138 0.954069 1.032358 0.991306 1.036841
                                             25148
                                   25147
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                         25146
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                                                                  25150
## Cluster 1 1.228718 1.202569 1.1872971 1.1266764 1.0651379 0.9711101 0.8778793
## Cluster 2 1.329428 1.296390 1.3135425 1.1900938 1.2007771 1.1316891 1.0763402
## Cluster 3 1.218021 1.173648 1.1268270 1.1232000 1.0799787 1.0535348 0.9751475
## Cluster 4 1.032105 1.000599 0.9434585 0.9240686 0.8886173 0.8591877 0.7693755
## Cluster 5 1.031086 1.020720 1.0222500 1.0416250 1.0985043 1.0961466 1.0713405
                           25153
                                     25154
                                               25155
                                                          25156
                 25152
                                                                    25157
                                                                              25158
## Cluster 1 0.7737613 0.6347347 0.4990597 0.3770981 0.2966751 0.2551247 0.2273873
## Cluster 2 0.9926422 0.7695924 0.5977449 0.4425308 0.3487713 0.2808886 0.2562317
## Cluster 3 0.9338936 0.8241702 0.7127872 0.6051390 0.5139787 0.4374936 0.3794014
## Cluster 4 0.6669892 0.5546462 0.4498845 0.4041336 0.3603610 0.3395018 0.3191516
## Cluster 5 1.0920517 1.0746509 0.9741681 0.8537284 0.7188319 0.5769612 0.5094569
                           25160
##
                 25159
                                     25161
                                               25162
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                                                                    25164
                                                                              25165
## Cluster 1 0.2118939 0.2099257 0.1944721 0.1925902 0.1942653 0.1968236 0.2105676
## Cluster 2 0.2297361 0.2110645 0.2007214 0.1938152 0.1962522 0.2023138 0.2086012
## Cluster 3 0.3284241 0.2993560 0.2834156 0.2669135 0.2708979 0.2563603 0.2686553
## Cluster 4 0.2926606 0.2922671 0.2953718 0.2896390 0.2982491 0.3069495 0.3594549
## Cluster 5 0.4370129 0.4246983 0.4262586 0.3798190 0.3555733 0.3358922 0.3248621
##
                 25166
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                                               25169
                                                          25170
                                                                    25171
                                                                              25172
```

```
## Cluster 1 0.2176724 0.2433873 0.3143607 0.4491260 0.6081737 0.6814602 0.7222560
## Cluster 2 0.2350938 0.3119443 0.3330176 0.4835103 0.5824663 0.6320528 0.5353754
## Cluster 3 0.2783518 0.2933135 0.3283447 0.4211064 0.5076738 0.5594695 0.5901319
## Cluster 4 0.4044513 0.4629747 0.6534368 0.8788051 0.9695668 0.9233141 0.8256751
## Cluster 5 0.3331422 0.3391422 0.3519440 0.4229871 0.5251422 0.5528922 0.5706853
                           25174
                                               25176
##
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                                     25175
                                                          25177
                                                                    25178
                                                                              25179
## Cluster 1 0.6734841 0.6844642 0.6678130 0.6980875 0.6637255 0.6248143 0.6322175
## Cluster 2 0.4572229 0.4170792 0.3791056 0.4177801 0.3843783 0.3722375 0.3939648
## Cluster 3 0.5854241 0.6032383 0.6306298 0.6352440 0.7241404 0.6936426 0.7235816
## Cluster 4 0.6741769 0.5907690 0.5462924 0.5807329 0.5387690 0.5803321 0.5333755
  Cluster 5 0.5353017 0.5099181 0.5786164 0.5793233 0.5105259 0.5154655 0.5462284
                                     25182
                                               25183
                 25180
                           25181
                                                          25184
                                                                    25185
                                                                              25186
## Cluster 1 0.6379509 0.6356817 0.5917454 0.6239085 0.5905080 0.6734881 0.7536538
## Cluster 2 0.4104457 0.3877742 0.4034751 0.4070762 0.3881466 0.4415630 0.4783284
## Cluster 3 0.6927617 0.7102113 0.7018667 0.7199730 0.7438170 0.7592496 0.8613816
## Cluster 4 0.5432671 0.5602744 0.5691805 0.5471949 0.5707726 0.6260578 0.6774440
## Cluster 5 0.5921897 0.5588060 0.5119655 0.5469957 0.5843922 0.5704655 0.5729397
##
                 25187
                           25188
                                     25189
                                               25190
                                                         25191
                                                                  25192
                                                                           25193
## Cluster 1 0.8786459 1.1555995 1.3543634 1.4442533 1.415515 1.320493 1.305485
## Cluster 2 0.5589091 0.6978798 0.8498065 1.0013050 1.177792 1.181440 1.247026
## Cluster 3 0.9452383 1.0939319 1.2272057 1.3219730 1.256363 1.264960 1.278214
## Cluster 4 0.8264043 1.0083069 1.0364729 1.0708412 1.104307 1.026765 1.051087
## Cluster 5 0.6628879 0.7757888 0.8627241 0.9195086 1.011466 1.074121 1.053323
                25194
                          25195
                                    25196
                                              25197
                                                         25198
                                                                   25199
## Cluster 1 1.287840 1.2134005 1.2179562 1.1590544 1.0843263 0.9701194 0.8232440
## Cluster 2 1.315545 1.2751818 1.3244370 1.2980704 1.2071114 1.0997361 0.9846393
## Cluster 3 1.263850 1.2605660 1.2681801 1.2112511 1.1358993 1.1134582 1.0551064
## Cluster 4 0.991148 0.9621949 0.9200181 0.9097365 0.8602816 0.8032094 0.7115596
## Cluster 5 1.008142 1.0384440 1.0236767 1.0487069 1.0509138 1.0300948 1.1090259
##
                 25201
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                                               25204
                                                          25205
                                                                    25206
                                                                              25207
## Cluster 1 0.7006592 0.5550915 0.4075239 0.3241393 0.2588369 0.2339748 0.2171180
## Cluster 2 0.8164956 0.6237830 0.4764721 0.3886393 0.3011584 0.2699824 0.2419560
## Cluster 3 0.9447844 0.7966326 0.6445816 0.5240511 0.4368681 0.3725844 0.3353716
## Cluster 4 0.6295054 0.5361011 0.4494332 0.3802816 0.3506931 0.3299892 0.3135415
## Cluster 5 1.0514009 0.9789397 0.8494009 0.7410172 0.6205819 0.5369483 0.4815905
                                     25210
                                               25211
                           25209
                                                          25212
                 25208
                                                                    25213
                                                                              25214
## Cluster 1 0.2043475 0.2094615 0.1987082 0.2008727 0.2044496 0.2232918 0.2296936
## Cluster 2 0.2334370 0.2107566 0.2106598 0.2120205 0.2247243 0.2347742 0.2542141
## Cluster 3 0.3112851 0.3031787 0.2951078 0.2883092 0.2892582 0.2923135 0.2864695
## Cluster 4 0.3261588 0.3413032 0.3295271 0.3357653 0.3578412 0.3890830 0.4251119
## Cluster 5 0.4286681 0.4374138 0.3784828 0.3699009 0.3497931 0.3325388 0.3490000
                 25215
                           25216
                                     25217
                                               25218
                                                          25219
                                                                    25220
                                                                              25221
## Cluster 1 0.2590928 0.3128899 0.4289178 0.6070650 0.7204271 0.6917905 0.7058793
## Cluster 2 0.3133666 0.3734164 0.5030616 0.6113196 0.6257361 0.5535337 0.4467243
## Cluster 3 0.3087844 0.3470312 0.4306667 0.5150312 0.5750596 0.6075915 0.6462638
## Cluster 4 0.4971119 0.6669350 0.8746101 1.0537112 0.9356968 0.7693791 0.6976570
## Cluster 5 0.3622802 0.3947112 0.4861810 0.5773448 0.5423966 0.5611940 0.5486724
                                                          25226
##
                 25222
                           25223
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                                               25225
                                                                    25227
                                                                              25228
## Cluster 1 0.7252891 0.7367188 0.7117480 0.7252613 0.7324483 0.7482228 0.7543316
## Cluster 2 0.4168534 0.4582639 0.4217009 0.4352463 0.4395044 0.4355630 0.4560147
## Cluster 3 0.6556454 0.6688993 0.7513957 0.7340879 0.7721149 0.8001858 0.7745773
## Cluster 4 0.6604477 0.6814765 0.6527220 0.6622744 0.6463394 0.6333502 0.6317942
## Cluster 5 0.5257974 0.5414871 0.5681379 0.5774612 0.5562543 0.6261379 0.6339310
##
                 25229
                           25230
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                                               25232
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                                                                    25234
                                                                              25235
```

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## Cluster 1 0.7401180 0.7148846 0.6936936 0.7098422 0.7454801 0.8258130 0.9821379
## Cluster 2 0.4850440 0.5015543 0.4646833 0.4936129 0.4908710 0.5433607 0.6524604
## Cluster 3 0.7796397 0.7983929 0.8082879 0.8302099 0.8564227 0.8971787 1.0163574
## Cluster 4 0.6346245 0.5956968 0.5851300 0.6279242 0.6843682 0.7736173 0.9076823
## Cluster 5 0.6218362 0.6052716 0.5813750 0.5995819 0.6416552 0.6669828 0.7060603
                                    25238
                                                      25240
##
                 25236
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                                             25239
                                                                25241
                                                                          25242
## Cluster 1 1.2357533 1.4346406 1.497151 1.482845 1.408527 1.370139 1.2774297
## Cluster 2 0.7918651 0.9091701 1.109639 1.287487 1.306111 1.317868 1.3951965
## Cluster 3 1.2146227 1.3106340 1.380789 1.345271 1.288498 1.265238 1.2627362
## Cluster 4 1.0834585 1.1892094 1.099693 1.093264 1.070155 1.009155 0.9833899
  Cluster 5 0.8023836 0.9201121 1.027276 1.060108 1.105466 1.095759 1.0858448
                           25244
                                     25245
                                               25246
                                                          25247
                 25243
                                                                    25248
## Cluster 1 1.2444403 1.2426472 1.1801538 1.1075212 1.0111605 0.8857891 0.7334576
## Cluster 2 1.3542170 1.3534692 1.3766070 1.2926833 1.1565630 1.0482317 0.8297654
## Cluster 3 1.2613858 1.2431376 1.1981901 1.1707858 1.1513986 1.0785986 0.9487986
## Cluster 4 0.9561191 0.9521588 0.9457076 0.9033249 0.8486318 0.7082419 0.5934693
## Cluster 5 1.1699569 1.1296595 1.1276810 1.1100043 1.1250043 1.1389224 1.1322974
##
                 25250
                           25251
                                     25252
                                               25253
                                                          25254
                                                                    25255
                                                                              25256
## Cluster 1 0.5863011 0.4287056 0.3606989 0.2939854 0.2655531 0.2593568 0.2497520
## Cluster 2 0.6401935 0.5183695 0.4214399 0.3559267 0.3093226 0.2796891 0.2710117
## Cluster 3 0.8155972 0.6758241 0.5457730 0.4554511 0.3918979 0.3431333 0.3228468
## Cluster 4 0.5415018 0.4725884 0.3727545 0.3670253 0.3504621 0.3383646 0.3221552
## Cluster 5 1.0338534 0.8923534 0.7254224 0.6474138 0.5387414 0.4751250 0.4677241
                 25257
                           25258
                                     25259
                                               25260
                                                          25261
                                                                    25262
## Cluster 1 0.2446459 0.2437427 0.2392082 0.2471976 0.2519310 0.2510981 0.2763700
## Cluster 2 0.2630117 0.2617331 0.2726598 0.2649413 0.2745220 0.3055836 0.3366188
## Cluster 3 0.3172071 0.3099248 0.3021248 0.3012099 0.3093574 0.3222894 0.3381092
## Cluster 4 0.3293646 0.3281011 0.3676534 0.3781733 0.3957220 0.4689747 0.5249458
## Cluster 5 0.4515000 0.4264138 0.4177672 0.3883578 0.3809483 0.3925474 0.3816983
##
                 25264
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                                     25266
                                               25267
                                                          25268
                                                                    25269
                                                                              25270
## Cluster 1 0.3324125 0.4491340 0.5885517 0.6604615 0.7595027 0.7768873 0.8173700
## Cluster 2 0.4582463 0.5388328 0.6210645 0.6664809 0.5970147 0.5447507 0.5228328
## Cluster 3 0.3676752 0.4249574 0.5062652 0.5772794 0.6418142 0.6834894 0.7185135
## Cluster 4 0.5998592 0.7346318 0.9140217 0.8890794 0.8046137 0.8284260 0.7590758
## Cluster 5 0.4116379 0.5131509 0.5698060 0.5574310 0.6038750 0.5862284 0.5888017
                           25272
                                     25273
                                               25274
                                                          25275
                 25271
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                                                                              25277
## Cluster 1 0.7942984 0.8038647 0.7776512 0.7212281 0.7218117 0.7134297 0.7207440
## Cluster 2 0.4988915 0.4875073 0.4984370 0.4340674 0.4225279 0.4613372 0.5070704
## Cluster 3 0.6913787 0.7475206 0.7634113 0.7655688 0.8028340 0.8181532 0.8728695
## Cluster 4 0.7285740 0.6542671 0.6601011 0.6307978 0.5981264 0.6542671 0.6336498
## Cluster 5 0.5676422 0.5775560 0.6135819 0.5972716 0.6262198 0.5991379 0.6362845
                 25278
                           25279
                                     25280
                                               25281
                                                          25282
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                                                                              25284
## Cluster 1 0.7332135 0.6939443 0.6628528 0.7088952 0.7987891 0.8978117 1.0733408
## Cluster 2 0.4876598 0.4958504 0.4735455 0.5273196 0.5678299 0.6445220 0.8186452
## Cluster 3 0.8776085 0.8787546 0.8329957 0.8599234 0.9546894 1.0469376 1.1503574
## Cluster 4 0.6243935 0.5898231 0.5840397 0.5841986 0.6641083 0.8247473 0.9527653
## Cluster 5 0.6180948 0.6399095 0.6190948 0.6316379 0.6386078 0.7313922 0.8096336
                           25286
##
                 25285
                                    25287
                                             25288
                                                       25289
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                                                                         25291
## Cluster 1 1.3119682 1.4165225 1.398897 1.403394 1.370095 1.297867 1.240659
## Cluster 2 0.9657713 1.0947214 1.178897 1.234868 1.281018 1.285097 1.264305
## Cluster 3 1.3222950 1.3377560 1.352404 1.348660 1.346390 1.313535 1.345170
## Cluster 4 1.0967401 1.1685271 1.122336 1.075758 1.026971 1.015321 1.005365
## Cluster 5 0.8931293 0.9652328 1.069582 1.065586 1.079879 1.058573 1.080940
##
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```

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## Cluster 1 1.2029721 1.1319469 1.093224 1.0049443 0.9024324 0.7351817 0.6155212
## Cluster 2 1.2941730 1.2771114 1.217648 1.1882962 1.0265601 0.8665279 0.7105806
## Cluster 3 1.2953943 1.2654028 1.172209 1.1658794 1.0571957 0.9753816 0.8844014
## Cluster 4 0.9667581 0.9610722 0.867722 0.7651264 0.6857112 0.6447473 0.6114440
## Cluster 5 1.0797198 1.0732155 1.068414 1.1224052 1.1077284 1.0725216 1.0168491
                 25299
                           25300
                                     25301
                                               25302
                                                          25303
##
                                                                    25304
## Cluster 1 0.4902480 0.4138859 0.3431353 0.2958448 0.2775676 0.2614801 0.2521167
## Cluster 2 0.5532727 0.4215630 0.3404076 0.3084135 0.2929032 0.2597771 0.2510645
## Cluster 3 0.7232723 0.6087319 0.5075220 0.4248043 0.3875858 0.3570723 0.3408014
## Cluster 4 0.4942491 0.4337329 0.3906570 0.3651191 0.3545740 0.3296859 0.3470975
  Cluster 5 0.8106552 0.6963233 0.6357802 0.5810302 0.5154052 0.4721595 0.4869612
                           25307
                 25306
                                     25308
                                               25309
                                                          25310
                                                                    25311
                                                                              25312
## Cluster 1 0.2525623 0.2516313 0.2513024 0.2585504 0.2569231 0.2781976 0.3506830
## Cluster 2 0.2569531 0.2611818 0.2596188 0.2650968 0.2832199 0.3384428 0.4364428
## Cluster 3 0.3305773 0.3181759 0.3158028 0.3128071 0.3317177 0.3358298 0.3743064
## Cluster 4 0.3587004 0.3681480 0.3774224 0.3962130 0.4733682 0.5106209 0.5839206
## Cluster 5 0.4331897 0.4055733 0.3716034 0.3643147 0.3692543 0.3862112 0.4351810
##
                 25313
                           25314
                                     25315
                                               25316
                                                          25317
                                                                    25318
                                                                              25319
## Cluster 1 0.4538050 0.5581751 0.6477202 0.7369960 0.7685782 0.7930252 0.7903767
## Cluster 2 0.4911261 0.5463607 0.5939384 0.5968211 0.5299355 0.5658886 0.6033666
## Cluster 3 0.4275716 0.5027291 0.5775901 0.6681135 0.6900099 0.7221433 0.7642950
## Cluster 4 0.7862130 0.9347870 0.9128592 0.8159964 0.7701516 0.7129495 0.6860903
## Cluster 5 0.5267845 0.5411034 0.5751595 0.5551379 0.5537672 0.6109310 0.6251164
                 25320
                           25321
                                     25322
                                               25323
                                                          25324
                                                                    25325
## Cluster 1 0.7831578 0.8288886 0.8067838 0.7735968 0.7999934 0.8221658 0.8264867
## Cluster 2 0.6071642 0.5661906 0.5732463 0.6109707 0.5636979 0.5217390 0.4896070
## Cluster 3 0.7705688 0.7929333 0.7685163 0.7988326 0.8005589 0.8628170 0.8620071
## Cluster 4 0.6660217 0.6860903 0.5970000 0.6493069 0.7314982 0.7103285 0.7158014
## Cluster 5 0.6453793 0.6422931 0.5899828 0.6490172 0.6253534 0.6186853 0.6358190
##
                 25327
                           25328
                                     25329
                                               25330
                                                          25331
                                                                    25332
                                                                              25333
## Cluster 1 0.7916300 0.7934761 0.8398780 0.8558687 0.9505928 1.1687467 1.3171074
## Cluster 2 0.4869472 0.5385543 0.5701906 0.5918270 0.7157566 0.8730645 1.0224751
## Cluster 3 0.8531929 0.8620596 0.8313773 0.8527872 0.9668128 1.1216411 1.2678312
## Cluster 4 0.7388087 0.7428159 0.7467653 0.7860217 0.8550144 1.0424440 1.0948556
## Cluster 5 0.6317543 0.6759009 0.6614569 0.6796897 0.7239828 0.8514353 0.9215259
                                  25336
                                           25337
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                                                              25339
                25334
                         25335
                                                                       25340
## Cluster 1 1.463723 1.471505 1.386666 1.391321 1.342261 1.260804 1.209310
## Cluster 2 1.063534 1.301208 1.270783 1.265871 1.288384 1.272762 1.220478
## Cluster 3 1.331550 1.324081 1.361037 1.365064 1.385383 1.345043 1.279081
## Cluster 4 1.113054 1.079588 1.114639 1.083870 1.064516 1.062744 1.013282
## Cluster 5 1.070353 1.162159 1.147384 1.176892 1.176297 1.168026 1.143534
                          25342
                                    25343
                                              25344
                25341
                                                        25345
                                                                   25490
                                                                             25491
## Cluster 1 1.168468 1.0846247 1.0277188 0.9290597 0.7973077 0.6100159 0.4906167
## Cluster 2 1.199287 1.1746070 1.1185660 1.0517625 0.9984135 0.6727214 0.5591760
## Cluster 3 1.304925 1.2345262 1.1893504 1.1538340 1.0649801 0.8097007 0.6862723
## Cluster 4 1.000776 0.9640036 0.8458412 0.7841480 0.6832599 0.5087473 0.4482960
## Cluster 5 1.186634 1.1649138 1.1076250 1.1042629 1.1623147 0.8948405 0.8022284
                                               25495
##
                 25492
                           25493
                                     25494
                                                          25496
                                                                    25497
                                                                              25498
## Cluster 1 0.3972414 0.3317480 0.2981194 0.2712759 0.2483488 0.2312149 0.2285027
## Cluster 2 0.4586862 0.4026188 0.3392053 0.2929883 0.2703431 0.2465073 0.2347478
## Cluster 3 0.6050468 0.5274340 0.4576128 0.4134809 0.3789787 0.3563660 0.3292411
## Cluster 4 0.3985560 0.3808412 0.3399928 0.3112924 0.3167473 0.3292419 0.3400253
## Cluster 5 0.7230560 0.6420862 0.5526767 0.5224655 0.4716983 0.4498836 0.4277931
##
                 25499
                           25500
                                     25501
                                               25502
                                                          25503
                                                                    25504
                                                                              25505
```

```
## Cluster 1 0.2183289 0.2132958 0.2139642 0.2214151 0.2206618 0.2410889 0.2703196
## Cluster 2 0.2347390 0.2284399 0.2107507 0.2227067 0.2377009 0.2611848 0.2805513
## Cluster 3 0.3104894 0.2899957 0.2810000 0.2796525 0.2865021 0.2928738 0.3099050
## Cluster 4 0.3169422 0.3154224 0.3433863 0.3530866 0.4127906 0.4322166 0.4867004
## Cluster 5 0.3908966 0.3616207 0.3440302 0.3466897 0.3298405 0.3315043 0.3699138
                 25506
                                                          25510
##
                           25507
                                     25508
                                               25509
                                                                    25511
## Cluster 1 0.3149562 0.3603236 0.4244668 0.5643276 0.6761313 0.7649310 0.8534934
## Cluster 2 0.3001114 0.3183842 0.3529589 0.3867566 0.4596452 0.4865572 0.5395396
## Cluster 3 0.3085220 0.3448922 0.4058610 0.4604383 0.5323972 0.5993007 0.7095546
## Cluster 4 0.5589170 0.6044260 0.6316606 0.7109170 0.6824188 0.6745523 0.7046679
  Cluster 5 0.3760345 0.3939224 0.4571379 0.4701293 0.5128621 0.5517931 0.5807759
                           25514
                                     25515
                                               25516
                 25513
                                                          25517
                                                                    25518
                                                                              25519
## Cluster 1 0.9470676 0.9671446 0.9494231 0.9625358 0.9887560 0.9886565 0.9522785
## Cluster 2 0.6424076 0.6647273 0.6509501 0.6712581 0.6684751 0.7460059 0.7018240
## Cluster 3 0.8159092 0.8522184 0.9255844 0.9251234 0.9995461 1.0060823 0.9755078
## Cluster 4 0.7573610 0.7627437 0.7201986 0.8073718 0.7430975 0.7368448 0.7085415
## Cluster 5 0.5982586 0.7009828 0.6740862 0.6409612 0.7126724 0.6991336 0.7167457
##
                 25520
                           25521
                                     25522
                                               25523
                                                          25524
                                                                    25525
                                                                              25526
## Cluster 1 0.8806989 0.9046989 0.9547613 1.0376923 1.1030809 1.2457984 1.2952069
## Cluster 2 0.7265630 0.6907155 0.7400968 0.7947771 0.9141378 0.9891114 1.0718886
## Cluster 3 1.0334326 1.0795986 1.0295645 1.0506936 1.1618000 1.2359163 1.2368851
## Cluster 4 0.7546606 0.7202960 0.8389278 0.9516968 1.0082347 1.0087942 1.0005162
## Cluster 5 0.6908922 0.7148707 0.7991078 0.8425905 0.8235216 0.8988750 0.9710776
                 25527
                           25528
                                     25529
                                               25530
                                                          25531
## Cluster 1 1.2198316 1.2015544 1.2003064 1.1021804 1.0376565 1.0034668 0.9536950
## Cluster 2 1.1821408 1.1448680 1.0402786 1.0710176 1.0586921 0.9773578 0.9317419
## Cluster 3 1.2354482 1.1999787 1.1343390 1.1024383 1.1029844 1.0752014 1.0679887
## Cluster 4 0.9416859 0.9074368 0.8839495 0.8407545 0.8305415 0.7853538 0.7469819
## Cluster 5 0.9979224 0.9790388 0.9434397 0.9104224 0.8914828 0.8489310 0.9308836
##
                 25534
                           25535
                                     25536
                                               25537
                                                          25538
                                                                    25539
                                                                              25540
## Cluster 1 0.8744469 0.8194854 0.7649204 0.7001247 0.5820769 0.4674655 0.3746631
## Cluster 2 0.8401320 0.8397243 0.8085513 0.7368446 0.6150000 0.4766950 0.4009648
## Cluster 3 0.9931518 0.9715901 0.9300369 0.8699021 0.7878355 0.6489546 0.5541376
## Cluster 4 0.6863538 0.6237473 0.6123538 0.5328736 0.4797292 0.4072383 0.3687148
## Cluster 5 0.9525129 0.9634224 0.9279483 0.9124828 0.8747974 0.7639914 0.6950216
                                     25543
                                               25544
                           25542
                 25541
                                                          25545
                                                                    25546
                                                                              25547
## Cluster 1 0.3119469 0.2586605 0.2254257 0.2107122 0.2017546 0.1930318 0.1831499
## Cluster 2 0.3152434 0.2513636 0.2230704 0.2061408 0.1831642 0.1753314 0.1769296
## Cluster 3 0.4672085 0.3815121 0.3402879 0.3153390 0.2811773 0.2659447 0.2472369
## Cluster 4 0.3408845 0.3123574 0.2941877 0.2914585 0.2953863 0.3038592 0.2987329
## Cluster 5 0.5970000 0.5607112 0.4716767 0.4148922 0.3815905 0.3524397 0.3493750
                 25548
                           25549
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                                               25551
                                                          25552
                                                                    25553
                                                                              25554
## Cluster 1 0.1817149 0.1800252 0.1922294 0.1985955 0.2184257 0.2498090 0.2786936
## Cluster 2 0.1720235 0.1779501 0.1769795 0.2001378 0.2153695 0.2436540 0.2774106
## Cluster 3 0.2390312 0.2386993 0.2392766 0.2451035 0.2547348 0.2744894 0.2782809
## Cluster 4 0.2849495 0.3095090 0.3090505 0.3537184 0.3818556 0.4962238 0.5292527
## Cluster 5 0.3228879 0.3190690 0.3346638 0.3240216 0.3409353 0.3515991 0.3666121
                           25556
                                     25557
                                                          25559
##
                 25555
                                               25558
                                                                    25560
                                                                              25561
## Cluster 1 0.3481313 0.4180225 0.5567812 0.6852454 0.7534019 0.8012228 0.8428223
## Cluster 2 0.3206041 0.3777214 0.4414897 0.4445103 0.5217097 0.5189062 0.5047742
## Cluster 3 0.3182908 0.3438255 0.4293603 0.5331589 0.6517262 0.7030965 0.7672596
## Cluster 4 0.6057112 0.6613791 0.7071083 0.6812888 0.7432455 0.7116751 0.7202202
## Cluster 5 0.3856336 0.3937931 0.4857069 0.5032802 0.5545948 0.5192629 0.5372069
##
                 25562
                           25563
                                     25564
                                               25565
                                                          25566
                                                                    25567
                                                                              25568
```

```
## Cluster 1 0.8345756 0.8867759 0.8595968 0.7930013 0.7686313 0.7504072 0.7531737
## Cluster 2 0.5936393 0.5894927 0.5392053 0.5490323 0.6114311 0.6037038 0.5945836
## Cluster 3 0.8149050 0.7837348 0.8411858 0.8649021 0.9099787 0.8619135 0.8785603
## Cluster 4 0.7856390 0.7359134 0.7396029 0.6828628 0.7049025 0.6498339 0.6947184
## Cluster 5 0.5842371 0.6509310 0.6557888 0.6040819 0.5673147 0.5587500 0.6199181
                 25569
##
                           25570
                                     25571
                                               25572
                                                          25573
                                                                   25574
                                                                             25575
## Cluster 1 0.8220875 0.7957613 0.8809960 1.0361538 1.1463382 1.227130 1.2679775
## Cluster 2 0.5708270 0.5690235 0.6469824 0.7212845 0.9365425 1.037296 1.1592991
## Cluster 3 0.8973660 0.8904936 0.9827078 1.1624426 1.1973560 1.193420 1.2209518
## Cluster 4 0.6549819 0.7385271 0.8176931 0.9013682 0.9935090 1.024628 0.9659422
  Cluster 5 0.6614741 0.6405905 0.7370129 0.8506466 0.8932241 0.985181 0.9151078
                                    25578
                                              25579
                25576
                          25577
                                                         25580
                                                                   25581
                                                                             25582
## Cluster 1 1.241779 1.1691883 1.1007533 1.0589509 1.0074629 0.9949536 0.9145862
## Cluster 2 1.166698 1.1282786 1.1112346 1.0658240 1.0444457 0.9661290 0.9522991
## Cluster 3 1.214052 1.1782057 1.1573447 1.1351362 1.0799957 1.0625574 1.0115901
## Cluster 4 0.980083 0.9034260 0.9042744 0.8770361 0.7951769 0.7186173 0.6953646
## Cluster 5 0.952181 0.9960905 0.8880733 0.9409267 0.9487629 0.9130129 0.9040517
##
                 25583
                           25584
                                     25585
                                               25586
                                                          25587
                                                                    25588
                                                                              25589
## Cluster 1 0.8246936 0.7410623 0.6350438 0.5684151 0.4557334 0.3843011 0.3181008
## Cluster 2 0.9224252 0.8147419 0.7170176 0.5851466 0.4794194 0.3684018 0.2765689
## Cluster 3 0.9703433 0.9156553 0.8497603 0.7640624 0.6586695 0.5441787 0.4784440
## Cluster 4 0.6569170 0.6060686 0.5471264 0.4586895 0.4013141 0.3699170 0.3111913
## Cluster 5 0.8816724 0.8312457 0.7781250 0.7320129 0.6782759 0.6322198 0.5648750
                 25590
                           25591
                                     25592
                                               25593
                                                          25594
                                                                    25595
## Cluster 1 0.2486645 0.2241512 0.2103753 0.2010106 0.1880504 0.1864164 0.1866379
## Cluster 2 0.2475396 0.2092405 0.1854985 0.1824282 0.1772199 0.1733959 0.1709150
## Cluster 3 0.3840340 0.3417560 0.3046128 0.2885050 0.2641504 0.2453078 0.2359801
## Cluster 4 0.3080144 0.2682274 0.2847581 0.2876209 0.2709747 0.2736823 0.2572455
## Cluster 5 0.4816250 0.4167716 0.3930819 0.3687888 0.3633664 0.3475172 0.3083060
##
                 25597
                           25598
                                     25599
                                               25600
                                                          25601
                                                                    25602
                                                                              25603
## Cluster 1 0.1917560 0.1838422 0.2010053 0.2115663 0.2450133 0.2917931 0.3431141
## Cluster 2 0.1695513 0.1720909 0.1786569 0.2456891 0.2888416 0.2829912 0.3232229
## Cluster 3 0.2382411 0.2393574 0.2423787 0.2532908 0.2733021 0.2722582 0.3113021
## Cluster 4 0.2957365 0.3206534 0.3597220 0.3844657 0.4673971 0.5293755 0.5818375
  Cluster 5 0.2876293 0.2969957 0.2968879 0.2972888 0.3380733 0.3466983 0.3430000
                                     25606
                                               25607
                                                          25608
                 25604
                           25605
                                                                    25609
                                                                              25610
## Cluster 1 0.4346406 0.5298952 0.6606485 0.7163143 0.7349881 0.7381552 0.8214337
## Cluster 2 0.3353021 0.4017859 0.4458739 0.4696393 0.5425924 0.5636569 0.5316452
## Cluster 3 0.3567248 0.4231163 0.5278752 0.5786284 0.6825262 0.7184355 0.8037716
## Cluster 4 0.7173502 0.6640903 0.6343502 0.6247978 0.6149856 0.6498773 0.6962635
## Cluster 5 0.3659181 0.4204741 0.4506078 0.5297931 0.5132155 0.5288233 0.6031121
                 25611
                           25612
                                     25613
                                               25614
                                                          25615
                                                                    25616
                                                                              25617
## Cluster 1 0.8222188 0.8024536 0.8685570 0.7578395 0.7630743 0.7380477 0.7359377
## Cluster 2 0.6338299 0.6536246 0.6295308 0.5739179 0.5469208 0.5459062 0.5658886
## Cluster 3 0.7941660 0.8749560 0.9207305 0.8669064 0.8473277 0.8061007 0.8393617
## Cluster 4 0.6919928 0.7046787 0.6382744 0.5559928 0.5775162 0.6027148 0.6423177
## Cluster 5 0.5674828 0.6084655 0.5900086 0.6196897 0.6126724 0.6252543 0.6126034
                                     25620
                                                          25622
##
                 25618
                           25619
                                               25621
                                                                    25623
                                                                              25624
## Cluster 1 0.7675531 0.8372745 1.0413674 1.2024045 1.2797759 1.2831472 1.2136658
## Cluster 2 0.6120821 0.6559560 0.7673783 0.8810469 0.9929179 1.1070557 1.1429912
## Cluster 3 0.8644667 0.9398099 1.0757986 1.1722610 1.2344312 1.1847872 1.1993035
## Cluster 4 0.6385884 0.7585848 0.9639278 1.0170542 0.9922274 0.9997509 0.9415199
## Cluster 5 0.6376336 0.6749871 0.7619440 0.8087974 0.8679957 0.9752888 0.9826034
##
                 25625
                          25626
                                    25627
                                              25628
                                                         25629
                                                                   25630
                                                                             25631
```

```
## Cluster 1 1.1620849 1.104477 1.0356512 0.9750637 0.9121751 0.8599271 0.8017056
## Cluster 2 1.0712551 1.037229 1.0400352 1.0369853 0.9994897 0.9489443 0.8505425
## Cluster 3 1.1944411 1.129939 1.0814752 1.0617461 1.0212723 0.9772794 0.9514340
## Cluster 4 0.8668123 0.879343 0.8459964 0.7788484 0.7153213 0.6767762 0.6275487
## Cluster 5 1.0126207 1.008112 0.9691897 0.9207371 0.9162672 0.9297026 0.9265302
                 25632
                           25633
                                               25635
                                                          25636
##
                                     25634
                                                                    25637
                                                                              25638
## Cluster 1 0.7180955 0.6642149 0.5391406 0.4374019 0.3496061 0.2920093 0.2441114
## Cluster 2 0.8101935 0.6624868 0.5648592 0.4229003 0.3528534 0.2875044 0.2452287
## Cluster 3 0.8931404 0.8398369 0.7391957 0.6200440 0.5201986 0.4389121 0.3691929
## Cluster 4 0.6032491 0.5332708 0.4558051 0.4064332 0.3809675 0.3317509 0.3126101
  Cluster 5 0.8733491 0.8454914 0.8094009 0.7094397 0.6285733 0.5529397 0.4877198
                           25640
                                     25641
                                               25642
                 25639
                                                          25643
                                                                    25644
                                                                              25645
## Cluster 1 0.2158859 0.2046499 0.1944098 0.1825862 0.1755398 0.1753382 0.1829416
## Cluster 2 0.2080381 0.1931202 0.1900968 0.1838123 0.1860792 0.1712727 0.1737771
## Cluster 3 0.3260142 0.2896340 0.2662440 0.2493404 0.2351064 0.2255475 0.2247433
## Cluster 4 0.2899206 0.2877256 0.2930794 0.2965776 0.2643177 0.2549675 0.2880144
## Cluster 5 0.4395905 0.4206724 0.3496595 0.3162414 0.2888879 0.2859957 0.2908922
##
                 25646
                           25647
                                     25648
                                               25649
                                                          25650
                                                                    25651
                                                                              25652
## Cluster 1 0.1812533 0.1849973 0.2100650 0.2630517 0.2876950 0.3506446 0.4224775
## Cluster 2 0.1755484 0.1845132 0.2345513 0.2697625 0.2748299 0.3382082 0.3478475
## Cluster 3 0.2256681 0.2342738 0.2469078 0.2708255 0.2880043 0.3254965 0.3692539
## Cluster 4 0.3048700 0.3730903 0.3996570 0.5066029 0.5780686 0.6645307 0.6520758
## Cluster 5 0.2837629 0.2917026 0.2935474 0.3260603 0.3493448 0.3525000 0.3887672
                 25653
                           25654
                                     25655
                                               25656
                                                          25657
                                                                    25658
## Cluster 1 0.5267440 0.6307759 0.6593170 0.7300623 0.7141194 0.7169721 0.7037865
## Cluster 2 0.3936305 0.4174252 0.4389560 0.4544311 0.4872551 0.5195132 0.4944487
## Cluster 3 0.4249035 0.4647943 0.5446028 0.6083135 0.6494851 0.6780936 0.7199319
## Cluster 4 0.5945560 0.6178339 0.7068159 0.6612419 0.7226498 0.6843971 0.6142166
## Cluster 5 0.4415345 0.4554353 0.3991207 0.4528017 0.4494009 0.4866983 0.5119871
##
                 25660
                           25661
                                     25662
                                               25663
                                                          25664
                                                                    25665
                                                                              25666
## Cluster 1 0.7340889 0.7911233 0.7312706 0.7074204 0.6995424 0.6509178 0.7148886
## Cluster 2 0.4432991 0.5021965 0.5693167 0.5298065 0.4953812 0.5026774 0.4890762
## Cluster 3 0.7575957 0.8259007 0.7924156 0.7872213 0.7846723 0.7945787 0.8335418
## Cluster 4 0.6074693 0.5721191 0.7015235 0.6896462 0.6414043 0.6368628 0.6958448
## Cluster 5 0.5998750 0.6141681 0.5641940 0.5748319 0.5519957 0.6010172 0.6382888
                                     25669
                                               25670
                 25667
                           25668
                                                          25671
                                                                    25672
                                                                             25673
## Cluster 1 0.8578621 0.9925159 1.1807467 1.2768740 1.2908541 1.1569032 1.107469
## Cluster 2 0.5796804 0.6928651 0.8141935 1.0089003 1.0645220 1.0861935 1.109701
## Cluster 3 0.8731660 1.0185489 1.1085858 1.1619858 1.1908596 1.1256482 1.121031
## Cluster 4 0.7293574 0.9306065 1.0448484 1.0014838 0.9614368 0.8622130 0.821361
## Cluster 5 0.6541681 0.6662888 0.7610905 0.8800733 0.9310862 0.9340603 1.000453
                 25674
                          25675
                                    25676
                                              25677
                                                         25678
                                                                   25679
                                                                             25680
## Cluster 1 1.0917560 1.016354 0.9998329 0.9518037 0.8826114 0.7799987 0.7223793
## Cluster 2 1.1406422 1.026894 0.9327185 0.9181349 0.8566598 0.8110381 0.7769032
## Cluster 3 1.1101064 1.093579 1.0506823 1.0857149 0.9843021 0.9658298 0.9185972
## Cluster 4 0.7983177 0.762509 0.7444224 0.7727365 0.6835776 0.6328809 0.5695343
## Cluster 5 0.9745733 0.949681 0.8921379 0.8864009 0.8583621 0.8562112 0.8693707
                           25683
                                               25685
                                                          25686
##
                 25681
                                     25684
                                                                    25687
                                                                              25688
## Cluster 1 0.6543554 0.4397082 0.3514960 0.2911764 0.2435265 0.2137387 0.1986698
## Cluster 2 0.7030499 0.4321935 0.3718886 0.3034927 0.2594106 0.2200088 0.1934311
## Cluster 3 0.8378766 0.6640638 0.5412199 0.4660681 0.3865773 0.3365064 0.2923801
## Cluster 4 0.5244079 0.4240108 0.3554043 0.2997798 0.2964079 0.2733971 0.2708448
## Cluster 5 0.8180474 0.7165259 0.6351897 0.5659224 0.5008362 0.4270603 0.3941121
##
                 25689
                           25690
                                     25691
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                                                          25693
                                                                    25694
                                                                              25695
```

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## Cluster 1 0.1844695 0.1754920 0.1800027 0.1777931 0.1766366 0.1774271 0.1846950
## Cluster 2 0.1759472 0.1652874 0.1787918 0.1663812 0.1702141 0.1710674 0.1856481
## Cluster 3 0.2746454 0.2559305 0.2411504 0.2254199 0.2328894 0.2348766 0.2347333
## Cluster 4 0.2599856 0.2483321 0.2525090 0.2571625 0.2697834 0.2876209 0.3488195
## Cluster 5 0.3263922 0.3121422 0.3079224 0.2730776 0.2679569 0.2855991 0.3096034
                 25696
                           25697
                                     25698
                                                          25700
                                                25699
                                                                    25701
## Cluster 1 0.2140133 0.2397268 0.2990544 0.3425981 0.4155053 0.4807533 0.6037626
## Cluster 2 0.2286833 0.2801261 0.3119589 0.3624809 0.3631760 0.3762493 0.4332141
## Cluster 3 0.2476270 0.2666043 0.2742227 0.3226780 0.3766000 0.4412681 0.5298454
## Cluster 4 0.4107653 0.4663357 0.5204188 0.6569783 0.6620614 0.5871733 0.5852708
## Cluster 5 0.3176767 0.3078664 0.3240991 0.3899310 0.3776207 0.3971250 0.4629138
                 25703
                           25704
                                     25705
                                                25706
                                                          25707
                                                                    25708
                                                                              25709
## Cluster 1 0.6578939 0.7541870 0.7892042 0.7874072 0.7744072 0.8704960 0.8579655
## Cluster 2 0.4365806 0.4157067 0.4634721 0.4607449 0.5223196 0.5350997 0.5363519
## Cluster 3 0.5853092 0.6588170 0.7203787 0.7566227 0.8066979 0.8222142 0.8166525
## Cluster 4 0.6202202 0.6951408 0.6329097 0.6084332 0.6454079 0.6317617 0.6468628
## Cluster 5 0.4318103 0.4527629 0.5108664 0.4975647 0.5645086 0.5249784 0.5309138
##
                 25710
                           25711
                                     25712
                                                25713
                                                          25714
                                                                    25715
                                                                              25716
## Cluster 1 0.8425345 0.7797387 0.8175199 0.7985027 0.8239854 0.9446645 1.0980398
## Cluster 2 0.5622786 0.5797801 0.5999032 0.6483079 0.6862463 0.8008299 0.9237683
## Cluster 3 0.8487064 0.9045972 0.8689021 0.9187660 0.9595986 1.0672709 1.2178865
## Cluster 4 0.6378339 0.6481480 0.6485126 0.6047220 0.6913249 0.7309134 0.9693935
## Cluster 5 0.5066164 0.5973190 0.6740905 0.5753060 0.6110259 0.7568319 0.8580690
                           25718
                                     25719
                                                25720
                 25717
                                                          25721
## Cluster 1 1.2303979 1.3321194 1.3133130 1.2377347 1.1380186 1.0773170 1.0344111
## Cluster 2 1.0408622 1.0811466 1.1793871 1.2217830 1.2213079 1.0900411 1.0748827
## Cluster 3 1.3360723 1.3887773 1.3322738 1.3245390 1.2218681 1.1504993 1.0890057
## Cluster 4 0.9390289 0.9991949 0.9708556 0.8867256 0.8878556 0.8609314 0.8138195
## Cluster 5 0.8786595 0.9377931 0.9822457 1.0098017 1.0051379 0.9868103 0.9458922
                 25724
                           25725
                                     25726
                                                25727
                                                          25728
                                                                    25729
## Cluster 1 0.9063011 0.8790053 0.8092878 0.7554005 0.7235796 0.6681777
## Cluster 2 1.0064487 0.9302346 0.8283402 0.8106452 0.7686891 0.7414340
## Cluster 3 0.9704000 0.9390057 0.8598567 0.7851730 0.7777901 0.7214879
## Cluster 4 0.7763213 0.7325379 0.6942852 0.6259170 0.6102780 0.5943863
## Cluster 5 0.8528793 0.8836552 0.8407974 0.8089224 0.7817672 0.7543534
## [ reached 'max' / getOption("max.print") -- omitted 1 rows ]
df0 <- Irish$extra
df0 <- df0 %>% mutate(dow = ifelse(dow %in% c("Sat", "Sun"), "True", "False")) %>% select(-c(holy,time,
df0 \leftarrow t(df0)
colnames(df0) <- colnames(mean_by_cluster)</pre>
mean_by_cluster <- rbind(mean_by_cluster,df0)</pre>
mean_by_cluster <- as.data.frame(t(mean_by_cluster))</pre>
# Convert Cluster and temp columns to numeric, weekend into logic
mean_by_cluster <- mean_by_cluster %>%
  mutate(across(starts_with("Cluster"), as.numeric),
         weekend = as.logical(weekend),
         temp = as.numeric(temp))
# Save as CSV file
write.csv(mean_by_cluster, file = "AggregatedData1.csv", row.names = FALSE)
```

```
{r} # mean_by_cluster0 <- mean_by_cluster %>% select(-tod) #
# mean_by_cluster0 <- mean_by_cluster0 %>% # group_by(toy)
%>% # summarise(across(starts_with("Cluster"), mean, na.rm =
TRUE), # weekend = any(weekend), # temp
= mean(temp, na.rm = TRUE)) #
```

{r} # # Save as CSV file # write.csv(mean\_by\_cluster0, file =
"Daily\_AggregatedData1.csv", row.names = FALSE) #

```
avg_demand_wide$cluster <- clusters</pre>
write.csv(avg_demand_wide, file = "cluster_data.csv", row.names = FALSE)
# Load necessary libraries
library(ggplot2)
library(dplyr)
library(tidyr)
# Identify the time columns by excluding non-time columns
time_columns <- grep("^\d{2}:\d{2}:\d{2}", colnames(avg_demand_wide), value = TRUE)
# Add rowid to avg_demand_wide for sampling
avg_demand_wide <- avg_demand_wide %>%
 mutate(rowid = row_number())
# Convert data to long format for plotting
avg_demand_long <- avg_demand_wide %>%
  pivot_longer(cols = all_of(time_columns),
              names_to = "Time",
              values_to = "Demand") %>%
 mutate(Time = as.numeric(gsub(":", "", Time)))
# Calculate mean demand for each cluster
mean_demand <- avg_demand_long %>%
  group_by(cluster, Time) %>%
  summarize(mean_demand = mean(Demand), .groups = 'drop')
# Plot mean demand for each cluster
for (cl in unique(avg_demand_wide$cluster)) {
  # Filter data for the cluster
 cluster_data <- avg_demand_long %>% filter(cluster == cl)
 # Sample 10 houses from the cluster
```

```
## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use `linewidth` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```

