assignment6

2023-03-31

```r
library(MASS)
library(faraway)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following object is masked from 'package:MASS':
##
##     select
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```r
##HW06: Use SVD_example.R as a guide to perform a SInguarValueDecomposition of the X matrix from the fa
data(meatspec)

X <- meatspec[, 1:50]
svd_x <- svd(X)
```

```r
print(svd_x$v)
```

```
##              [,1]         [,2]         [,3]         [,4]         [,5]
##  [1,] -0.1330763 -0.1963797318 -0.134846100  0.329176173  0.129939225
##  [2,] -0.1332149 -0.1932376023 -0.117080501  0.291169902  0.097999322
##  [3,] -0.1333540 -0.1900050938 -0.099562195  0.254163293  0.068730843
##  [4,] -0.1334953 -0.1866484249 -0.082276797  0.218084556  0.041597666
##  [5,] -0.1336412 -0.1831127045 -0.065308948  0.183061743  0.017330801
##  [6,] -0.1337942 -0.1793430165 -0.048783078  0.149283753 -0.003952843
##  [7,] -0.1339565 -0.1752989601 -0.032892470  0.117010131 -0.022533612
##  [8,] -0.1341295 -0.1709595178 -0.017774435  0.086400768 -0.039102939
##  [9,] -0.1343146 -0.1662924954 -0.003323414  0.057454930 -0.053529777
## [10,] -0.1345141 -0.1612532945  0.010437107  0.030339825 -0.065598368
## [11,] -0.1347265 -0.1558622784  0.023380380  0.004937449 -0.075001153
## [12,] -0.1349527 -0.1500247691  0.035479951 -0.018577895 -0.080346437
## [13,] -0.1351945 -0.1436110763  0.046640119 -0.039838964 -0.082478541
## [14,] -0.1354542 -0.1364784202  0.056798365 -0.058477937 -0.080837697
```

```
## [15,]  -0.1357340 -0.1285286436   0.065821325 -0.074326408 -0.075805066
## [16,]  -0.1360352 -0.1199669510   0.073795773 -0.087354310 -0.067288234
## [17,]  -0.1363577 -0.1102216485   0.080743542 -0.097566890 -0.053574316
## [18,]  -0.1367044 -0.0998390639   0.086629787 -0.104630711 -0.035170664
## [19,]  -0.1370765 -0.0885841102   0.091480870 -0.108655830 -0.014884494
## [20,]  -0.1374718 -0.0765143462   0.095637830 -0.110312420  0.005588438
## [21,]  -0.1378830 -0.0640216449   0.099661898 -0.110360212  0.018337856
## [22,]  -0.1382980 -0.0517070444   0.104240712 -0.110343390  0.019564206
## [23,]  -0.1387046 -0.0401729014   0.109731988 -0.111828440  0.008398777
## [24,]  -0.1390958 -0.0297253481   0.116000898 -0.115594327 -0.010981353
## [25,]  -0.1394727 -0.0201581868   0.122492726 -0.121223180 -0.030230274
## [26,]  -0.1398442 -0.0107907969   0.128650130 -0.127062036 -0.039672399
## [27,]  -0.1402263 -0.0005236082   0.133763029 -0.129870612 -0.031925670
## [28,]  -0.1406377  0.0119168705   0.137443543 -0.126676367 -0.005914545
## [29,]  -0.1410920  0.0273034562   0.139020496 -0.115829587  0.029808741
## [30,]  -0.1415933  0.0458829620   0.138500940 -0.096749849  0.066955511
## [31,]  -0.1421325  0.0669985672   0.136201998 -0.070727280  0.094749423
## [32,]  -0.1426915  0.0893007645   0.132916062 -0.040638930  0.109109470
## [33,]  -0.1432541  0.1112781144   0.129035724 -0.009821268  0.113558314
## [34,]  -0.1438180  0.1319374446   0.123926509  0.019504320  0.117171473
## [35,]  -0.1444013  0.1513031419   0.116227018  0.047427798  0.130225239
## [36,]  -0.1450338  0.1701257760   0.104679649  0.076083324  0.153119287
## [37,]  -0.1457460  0.1887982982   0.088401538  0.107648934  0.176174835
## [38,]  -0.1465315  0.2066967607   0.067441802  0.140198304  0.178749734
## [39,]  -0.1473643  0.2220697197   0.042235457  0.169394732  0.151146297
## [40,]  -0.1482052  0.2325544038   0.013339082  0.189104979  0.086790955
## [41,]  -0.1490075  0.2354915127  -0.018396723  0.192893718 -0.015485166
## [42,]  -0.1497298  0.2286602545  -0.051959605  0.175379603 -0.143422251
## [43,]  -0.1503516  0.2112650421  -0.086861996  0.134328032 -0.267046112
## [44,]  -0.1508853  0.1844491267  -0.123415749  0.072338611 -0.350936917
## [45,]  -0.1513792  0.1511579567  -0.163125354 -0.003463689 -0.367540216
## [46,]  -0.1519089  0.1153985513  -0.207857676 -0.082894153 -0.307139447
## [47,]  -0.1525611  0.0810639283  -0.259172277 -0.155806479 -0.177451838
## [48,]  -0.1534344  0.0510741523  -0.318884203 -0.212647373  0.010236419
## [49,]  -0.1545777  0.0262910300  -0.388194141 -0.250642231  0.223181111
## [50,]  -0.1560246  0.0065025383  -0.468397918 -0.269242477  0.447524267
##               [,6]        [,7]         [,8]         [,9]        [,10]
##  [1,]   0.26120634  0.204543477  0.0262610582 -0.275911905 -0.0815616484
##  [2,]   0.19875622  0.147633006  0.0205806603 -0.149977651 -0.0408775056
##  [3,]   0.14224404  0.092320214  0.0160177430 -0.045611958 -0.0074254297
##  [4,]   0.09276121  0.040787713  0.0113986358  0.036231660  0.0161754532
##  [5,]   0.04957803 -0.007799969  0.0050487448  0.095471774  0.0317377810
##  [6,]   0.01137320 -0.052825115 -0.0037065016  0.134919706  0.0411731101
##  [7,]  -0.02318662 -0.093174529 -0.0130126269  0.154320829  0.0437427438
##  [8,]  -0.05540121 -0.126851153 -0.0231296943  0.159259485  0.0318366812
##  [9,]  -0.08341515 -0.153266095 -0.0346665027  0.160771409  0.0277888667
## [10,]  -0.10322956 -0.174479118 -0.0472152134  0.149371860  0.0244409271
## [11,]  -0.11623471 -0.186663769 -0.0504485606  0.115038440  0.0172024948
## [12,]  -0.12592273 -0.191865930 -0.0476707424  0.074218971  0.0023044478
## [13,]  -0.13468818 -0.186935081 -0.0405260104  0.023921331 -0.0160247866
## [14,]  -0.14312918 -0.170833727 -0.0294452693 -0.034966700 -0.0238835300
## [15,]  -0.15042137 -0.139834296 -0.0102414212 -0.101900629 -0.0143475694
## [16,]  -0.15543466 -0.090970065  0.0148761040 -0.167719312 -0.0009384373
## [17,]  -0.15767215 -0.025440117  0.0510440306 -0.223656884  0.0058183146
```

```
## [18,] -0.15701144  0.052406772  0.0936024294 -0.233244152  0.0076264757
## [19,] -0.15324337  0.136443557  0.1349590277 -0.210828922  0.0189168928
## [20,] -0.14222267  0.217853617  0.1662147564 -0.152328435  0.0391466589
## [21,] -0.12037659  0.286728822  0.1678192401 -0.062123357  0.0623944858
## [22,] -0.08322080  0.325711858  0.1375862047  0.052695476  0.0733819325
## [23,] -0.03047140  0.323454427  0.0791240795  0.167283005  0.0435101592
## [24,]  0.03189044  0.279177875  0.0006041103  0.238382951 -0.0360833085
## [25,]  0.09455206  0.202888167 -0.0843815859  0.232088407 -0.1326410750
## [26,]  0.15032587  0.111339415 -0.1603100303  0.151012745 -0.2198481881
## [27,]  0.19123135  0.024828231 -0.2093414906  0.043696536 -0.2605860674
## [28,]  0.21344586 -0.047084549 -0.2270855294 -0.056508085 -0.2447876144
## [29,]  0.21676012 -0.097356790 -0.2201872151 -0.154320073 -0.1585856399
## [30,]  0.20389579 -0.119604695 -0.1936930298 -0.213935382  0.0114916483
## [31,]  0.18322097 -0.112170299 -0.1437039526 -0.206893809  0.2390193847
## [32,]  0.16538443 -0.090910967 -0.0642849155 -0.108822036  0.4074812151
## [33,]  0.15252914 -0.075623063  0.0393979183  0.054065053  0.4186192386
## [34,]  0.13457516 -0.076721052  0.1509405062  0.198371731  0.2578965065
## [35,]  0.09760194 -0.092520971  0.2384689310  0.245007065  0.0426769174
## [36,]  0.03537236 -0.110488066  0.2705897860  0.174195850 -0.1223923507
## [37,] -0.04883056 -0.114527611  0.2255411122  0.054522590 -0.2195171048
## [38,] -0.13054447 -0.097054202  0.1323936089 -0.056619777 -0.2623293455
## [39,] -0.19445077 -0.052883958  0.0112404090 -0.107848079 -0.2287550379
## [40,] -0.22638404  0.008902118 -0.1073837966 -0.104168393 -0.0977028302
## [41,] -0.21766481  0.077245220 -0.1963072120 -0.069899759  0.0748415631
## [42,] -0.16496848  0.128345759 -0.2301068222 -0.025519415  0.1770864707
## [43,] -0.07653481  0.135537998 -0.1940046221  0.018971591  0.1556214201
## [44,]  0.02801946  0.090494279 -0.0897040039  0.060699197  0.0415015442
## [45,]  0.11893235  0.014274429  0.0585363261  0.060591473 -0.0726220988
## [46,]  0.16755210 -0.058455724  0.2015427868 -0.009715332 -0.1150964814
## [47,]  0.16000767 -0.104413758  0.2770467215 -0.103946106 -0.0442680972
## [48,]  0.08423876 -0.096490726  0.2072437939 -0.132688472  0.0516683109
## [49,] -0.02921990 -0.039430772  0.0042729412 -0.045469152  0.0513008931
## [50,] -0.16571422  0.086467160 -0.3189055267  0.199044983 -0.0157494672
##              [,11]        [,12]        [,13]        [,14]        [,15]
##  [1,]  0.125353755 -0.2758478260 -0.037391908 -0.032494556  0.103540171
##  [2,]  0.061876064 -0.1034709088  0.018248466 -0.035517138  0.066200968
##  [3,]  0.006635922  0.0131411344  0.037043893 -0.020479741  0.007473987
##  [4,] -0.031897820  0.0926036657  0.048549776 -0.009017962 -0.055243545
##  [5,] -0.060805185  0.1377923872  0.019620362  0.005409622 -0.109529927
##  [6,] -0.076245248  0.1526446228 -0.018899467  0.046297024 -0.119289777
##  [7,] -0.087122366  0.1472963033 -0.041882750  0.103653030 -0.083886061
##  [8,] -0.097533419  0.1421004091 -0.027052670  0.097806868 -0.032190472
##  [9,] -0.107767856  0.1298631882 -0.008254227  0.023847565 -0.011876868
## [10,] -0.081840235  0.0892895486 -0.036335635 -0.059461001  0.009344589
## [11,] -0.028459952  0.0300795073 -0.044713009 -0.043366380  0.054354994
## [12,]  0.031904488 -0.0427388281 -0.040468154 -0.014650552  0.088806033
## [13,]  0.072258379 -0.1231664637 -0.032685830 -0.013588722  0.119679972
## [14,]  0.092835265 -0.1860802068  0.006548716 -0.039399313  0.116253645
## [15,]  0.091565627 -0.2182807967  0.079611606 -0.057436360  0.089068934
## [16,]  0.082832166 -0.2098564434  0.124651147 -0.037058146  0.050650853
## [17,]  0.077947270 -0.1672621538  0.089863693 -0.005208799 -0.040649247
## [18,]  0.115061220 -0.0928015975 -0.039926687  0.028430821 -0.129453812
## [19,]  0.141135501  0.0611289369 -0.054051707  0.044654993 -0.185957576
## [20,]  0.099672486  0.1795307002  0.003181296  0.038882577 -0.179784048
```

```
## [21,]  0.004554430  0.2265017120  0.014139861  0.052100954 -0.071728082
## [22,] -0.083001069  0.1782828586 -0.017373652  0.027800922  0.051453644
## [23,] -0.123897346  0.0533415105 -0.071868817 -0.023451001  0.150036179
## [24,] -0.128103221 -0.0792005942 -0.057269383 -0.067457290  0.219413072
## [25,] -0.120486524 -0.1662011202  0.057456248 -0.088218401  0.198154128
## [26,] -0.120123922 -0.1985226300  0.146784813 -0.050172796  0.066842199
## [27,] -0.088599282 -0.1328050242  0.078897864  0.031263913 -0.185649041
## [28,] -0.003990986  0.0165260673 -0.111623653 -0.006446127 -0.279333803
## [29,]  0.060380161  0.2029964940 -0.203360866  0.020572632 -0.174918944
## [30,]  0.031821761  0.2550678535 -0.104476458  0.091118240  0.015985251
## [31,] -0.049107445  0.1753353365  0.085537465  0.143827340  0.241999276
## [32,] -0.058115972  0.0307511992  0.181132423  0.055850766  0.258997682
## [33,]  0.047665453 -0.0877851112  0.086443509 -0.158249503  0.029483078
## [34,]  0.173892131 -0.1245937393 -0.042868419 -0.313528806 -0.222415644
## [35,]  0.186054175 -0.1319719957 -0.047900367 -0.134966437 -0.301891877
## [36,]  0.073630224 -0.1508616925  0.006728304  0.395521605 -0.092579638
## [37,]  0.043734202 -0.0557598444 -0.138451179  0.420450995  0.198271072
## [38,]  0.030569576  0.1533926681 -0.005628432 -0.032844346  0.252497502
## [39,] -0.065720134  0.2035433300  0.042477415 -0.336656030  0.175600335
## [40,] -0.190509228  0.0611469711  0.110163967 -0.332197684 -0.082138608
## [41,] -0.247915371 -0.1302639643  0.103901791 -0.005012153 -0.238502312
## [42,] -0.133382516 -0.1739832520 -0.015531543  0.259276471 -0.172390554
## [43,]  0.082387930 -0.0730620215 -0.142036821  0.188764379  0.035498931
## [44,]  0.285383132  0.0627996924 -0.218117487 -0.013003526  0.157211338
## [45,]  0.312207806  0.1296628402 -0.054847876 -0.075253301  0.109109615
## [46,]  0.085744512  0.1609544585  0.297571130 -0.178543759 -0.046565247
## [47,] -0.308039213  0.0005014964  0.447445824  0.183322807 -0.059800351
## [48,] -0.371643462 -0.1406864736 -0.373714821 -0.067445863  0.011590544
## [49,] -0.118203318 -0.0780225358 -0.400280877 -0.120072622  0.015673902
## [50,]  0.364912543  0.0568508506  0.300986884  0.112245238 -0.017314155
##              [,16]        [,17]        [,18]        [,19]        [,20]
##  [1,] -0.129349810  0.16819582 -0.209709981  0.075459169 -0.3761743433
##  [2,] -0.059208037  0.06436850 -0.071876144  0.088692551  0.0779649985
##  [3,]  0.025727300  0.02715531  0.206662834  0.050857213  0.3631446331
##  [4,]  0.080355959 -0.06341969  0.299923755 -0.161377547  0.2880997935
##  [5,]  0.081036790 -0.15470976  0.164398407 -0.295950033  0.0582396560
##  [6,]  0.062818488 -0.24408026 -0.113374695 -0.171373549 -0.1347148983
##  [7,]  0.084253799 -0.23483198 -0.291359722  0.097417831 -0.1393250246
##  [8,]  0.110442627 -0.10454439 -0.108070613  0.243040144 -0.0299945457
##  [9,]  0.074592610  0.08211912  0.184656404  0.234919734 -0.0747361582
## [10,]  0.005977058  0.15291521  0.125213784  0.072003824 -0.2744748535
## [11,] -0.169751506  0.23124137 -0.038252616 -0.070693051 -0.2458156812
## [12,] -0.183933729  0.23545880 -0.255220586 -0.148567045  0.0399876394
## [13,] -0.087359373  0.18333172 -0.261534716 -0.100302480  0.3421445308
## [14,] -0.011678184  0.09577616 -0.040197084  0.058908062  0.3732033975
## [15,] -0.036490638 -0.01968676  0.226163932  0.189139255  0.0766685476
## [16,] -0.074134597 -0.14744443  0.333582033  0.081487058 -0.2215339609
## [17,] -0.035611378 -0.26030574  0.170474279 -0.230872935 -0.2000282896
## [18,]  0.120115392 -0.22829567 -0.137510367 -0.317502954 -0.0573518456
## [19,]  0.249743263 -0.11354487 -0.207556302  0.029135075  0.1027371947
## [20,]  0.149502847  0.07569096 -0.130910529  0.302771550  0.0942182674
## [21,] -0.038672380  0.23081997  0.061144897  0.220323684 -0.0235866143
## [22,] -0.183994360  0.22435618  0.165187733 -0.052237417 -0.0627732805
## [23,] -0.208771132  0.06314751  0.088133171 -0.241734778 -0.0348483050
```

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```
## [24,] -0.105065586 -0.14012771 -0.117284795 -0.175316832  0.0353244509
## [25,]  0.049675228 -0.23938648 -0.166247713  0.103640282  0.0961510625
## [26,]  0.193206281 -0.11662151 -0.028431107  0.248157607 -0.0195201561
## [27,]  0.258183842  0.16387720  0.118893251 -0.010780724 -0.0954961207
## [28,]  0.079499903  0.18482921  0.103718329 -0.133735135 -0.0225257950
## [29,] -0.158025119  0.04694884  0.003693233 -0.077764943  0.0423210767
## [30,] -0.285398735 -0.12229601 -0.056405802  0.054522929  0.0793305847
## [31,] -0.126325432 -0.16547962 -0.032919176  0.083332717  0.0190417114
## [32,]  0.165789510  0.01148965 -0.020125773 -0.022738164 -0.0536742905
## [33,]  0.271277055  0.15165696 -0.014547273 -0.064478072 -0.0557233780
## [34,]  0.044996775  0.05627942  0.016268940 -0.031916835  0.0094390209
## [35,] -0.222548955 -0.06653167  0.004344889  0.086930859  0.0435190951
## [36,] -0.316347795 -0.18069972  0.073477705  0.143901674  0.0189107522
## [37,]  0.253193169  0.14555097 -0.033533652 -0.138888629 -0.0469043623
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## [39,]  0.019836541 -0.09097497  0.072687680  0.013335564  0.0100279857
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## [43,]  0.075636375  0.04852299  0.115559101 -0.009600793  0.0524138413
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##  [2,]  0.0041484053 -0.030405073  0.09230123  0.056533349 -0.336705931
##  [3,] -0.1414743780 -0.109721406 -0.05773250  0.144895442 -0.169639277
##  [4,] -0.1690944925 -0.092238939 -0.04104875  0.045918696  0.076262907
##  [5,] -0.0215375288 -0.058600164  0.10295354  0.018372956  0.282430377
##  [6,]  0.1674067950 -0.039563535  0.22832107  0.085922163  0.264829501
##  [7,]  0.2970887616  0.052283598  0.11265904  0.087671662 -0.041527910
##  [8,]  0.2548950036  0.243586606 -0.12294249 -0.011044367 -0.216936176
##  [9,] -0.0778314995  0.083474868 -0.34083094 -0.366078693 -0.184420705
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## [14,]  0.2691465124  0.018461032 -0.09769185 -0.071697593  0.092868979
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## [20,] -0.1620128092 -0.094269729  0.10972777 -0.013077563  0.189209641
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## [24,] -0.0002357812 -0.180331167 -0.01516916 -0.278574737 -0.058853266
## [25,] -0.1801144259 -0.122625575  0.11257762 -0.166058243 -0.029005732
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## [32,] -0.0364209233  0.003582613 -0.13356730  0.097026897  0.052834392
## [33,]  0.0595020660  0.012885095  0.04718124 -0.051666519  0.014555171
## [34,]  0.0690259358  0.053266962  0.15789663 -0.093682370 -0.062052411
## [35,] -0.0878838327  0.054578248 -0.02089508 -0.058970241 -0.005668535
## [36,] -0.0627248298  0.068693852 -0.15938462  0.214969989  0.017472403
## [37,] -0.0021828510 -0.284753890 -0.05351532 -0.119573562  0.095722754
## [38,]  0.0984656085  0.102447886  0.26153759  0.055942652 -0.207991240
## [39,] -0.0388535508  0.178787825  0.04581913 -0.046966202  0.018903893
## [40,] -0.0241265924  0.031655372 -0.18831833 -0.030029618  0.181890075
## [41,]  0.0493828843 -0.222030693 -0.15569053  0.098450909  0.026044006
## [42,]  0.0324132102 -0.160686234  0.13914192 -0.017716104 -0.155436262
## [43,] -0.0433117210  0.217276896  0.21005523 -0.111906767 -0.070395223
## [44,] -0.0837783070  0.277256453 -0.03120322  0.009495701  0.119760322
## [45,]  0.0315558937 -0.215348912 -0.19252630  0.067146008  0.157390327
## [46,]  0.1215013568 -0.277764169 -0.09565219  0.199571531 -0.267151123
## [47,] -0.0734716514  0.227215183  0.25261781 -0.339030686  0.023389863
## [48,]  0.0328067359  0.083254669 -0.20991007  0.046469543  0.233460915
## [49,] -0.0599301292 -0.135005744  0.20025618  0.159299894 -0.213571569
## [50,]  0.0244162040  0.048970562 -0.08633673 -0.072871137  0.060786550
##                 [,26]        [,27]         [,28]         [,29]          [,30]
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##  [2,] -0.311367703  0.075609921  0.3191530175  0.030736394 -0.3205353106
##  [3,] -0.188203209  0.161865571 -0.0403530364 -0.108068859  0.1521499031
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##  [9,]  0.011800721 -0.115231791  0.2156347640  0.448962166  0.1379541564
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## [11,] -0.081720588  0.037711557 -0.1068020277 -0.206364332  0.0647099905
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## [15,]  0.034438704 -0.062914545 -0.0519513968 -0.145845633 -0.0155749147
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## [30,]   0.011083683 -0.182366277 -0.1734977826  0.007676200 -0.1882321634
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## [36,]   0.112333706 -0.001415874  0.2501397516 -0.069143084  0.2557009650
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## [39,]  -0.029981626  0.079304683  0.1329280108 -0.158392035  0.0522305583
## [40,]  -0.080475822  0.167229503  0.0016177103  0.044381996 -0.0559901258
## [41,]   0.007271794  0.047329945 -0.1379186420  0.132507634  0.0245241674
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##  [2,]  -0.168140979 -0.015330475 -0.265981330 -0.3178265919 -0.111142720
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##  [8,]   0.175625075 -0.001104552 -0.229337099 -0.3143650517 -0.191909836
##  [9,]  -0.234142083  0.164475166  0.017700560  0.1908321107  0.030408291
## [10,]   0.177157773 -0.184395411  0.201847512 -0.1083622101  0.038208800
## [11,]  -0.005431161  0.020244686 -0.226391194 -0.0297967403  0.042685054
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## [13,]   0.117380146  0.011308914  0.093794414  0.0767362269 -0.063930381
## [14,]   0.081435203 -0.047984044  0.001500596 -0.0527181236  0.100760389
## [15,]  -0.164264520  0.021965612 -0.082125991 -0.1078304312  0.132106813
## [16,]  -0.036549051 -0.005647682 -0.046462706  0.2221547556 -0.370548369
## [17,]   0.223410529  0.027238073  0.245250522 -0.2727340067  0.397783907
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## [19,]  -0.051137119  0.296560205 -0.063858088 -0.1413334691  0.175951656
## [20,]  -0.045441378 -0.017790051  0.045413597 -0.1085402698 -0.119274629
## [21,]   0.125655617 -0.224296290  0.024857266  0.0661485670  0.005480134
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## [23,]  -0.043569405  0.275238210  0.022177059 -0.0418649978 -0.042509410
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## [33,]  0.032636782 -0.184515803 -0.253677272  0.1117484403  0.035400572
## [34,] -0.056567967  0.203127218 -0.007534764  0.0185894355  0.237251776
## [35,] -0.056044936  0.035774378  0.283374052 -0.0599380432 -0.319657666
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## [37,] -0.018859245  0.064701598 -0.088227960  0.0393545974  0.056221826
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## [41,] -0.208899425 -0.052269900  0.075490515 -0.0693971500  0.020466278
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##  [2,] -0.004986580  0.0507165950  0.0244043268  0.0756624235  0.139713353
##  [3,] -0.101158912 -0.2209170162  0.1357354789 -0.0003771901 -0.230566153
##  [4,]  0.115229844  0.2506113984 -0.1495591540 -0.1326871200  0.223676928
##  [5,] -0.020187940 -0.0192859704  0.0233658485  0.0555004930 -0.011402229
##  [6,] -0.030725411 -0.1931217930  0.0861655796  0.1081244594 -0.172497011
##  [7,]  0.084831515  0.1804403966 -0.2434724613 -0.1394462892  0.172191067
##  [8,]  0.056024045 -0.0730867602  0.1813182152  0.0580399928 -0.164627578
##  [9,] -0.066471393 -0.0513881409 -0.1518289226  0.0702539953  0.070523972
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## [17,]  0.142023351 -0.0760882870  0.0641244457 -0.0904282159  0.079097608
## [18,] -0.239643223 -0.0769651382 -0.1372323382  0.0592212309  0.102285040
## [19,]  0.036175538  0.0996685361  0.0587553756 -0.0627101140 -0.324082522
## [20,]  0.038643921  0.0212025584  0.0191299804 -0.1091774542  0.276671393
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## [24,]  0.034948624 -0.1304032952 -0.0221979379 -0.0201743294  0.214075723
## [25,]  0.052575865  0.0183695909  0.0007730377  0.2262048125 -0.098834599
## [26,] -0.313035464  0.0271845352 -0.0118113059 -0.2646708628 -0.093684730
## [27,]  0.439555649 -0.0460098088  0.1382566523  0.1360249225  0.142605280
## [28,] -0.269849514  0.0918681893 -0.2474901561  0.1203546795 -0.076885319
## [29,]  0.054346584 -0.0631916893  0.0794180684 -0.1826366998 -0.005456062
## [30,]  0.002513523 -0.0098709969  0.1820974556 -0.1035680347  0.055268925
## [31,] -0.058940854  0.0449332569 -0.1499961891  0.2848055428 -0.037969979
## [32,]  0.130216933 -0.0318638545 -0.1185673477 -0.0342027506 -0.049371906
## [33,]  0.044622187 -0.0479050247  0.1956254395 -0.3063178787  0.073092342
## [34,] -0.383793946  0.1454487137  0.0148212129  0.2999727628  0.056895461
## [35,]  0.407679565 -0.1501783756 -0.1555627561 -0.0421482970 -0.183948011
```

```
## [36,] -0.133838723  0.0096292577  0.1248226866 -0.0541046886  0.214354291
## [37,]  0.050384145  0.1701179056 -0.1370246719  0.0572563261 -0.228226115
## [38,] -0.136527220 -0.1465047560  0.1527219263 -0.2098776351  0.113224485
## [39,]  0.095376088 -0.0547074542 -0.0815780589  0.2938579148  0.054530509
## [40,]  0.071257007  0.1371809261 -0.0470840601 -0.1225637602 -0.035705969
## [41,] -0.140571867  0.0006336012  0.1130127124 -0.1243161997 -0.072005670
## [42,] -0.024113043 -0.1459480086  0.0408318037  0.1740697717  0.099559112
## [43,]  0.186122379  0.0571044218 -0.1647542228  0.0251425286  0.014881686
## [44,] -0.113448654  0.1693293432 -0.0160240291 -0.2092135181 -0.209748399
## [45,] -0.033090603 -0.2443538737  0.2050481451  0.1815696033  0.271344554
## [46,]  0.100614563  0.1389674307 -0.1524663520 -0.0615407937 -0.140507825
## [47,] -0.094732424 -0.0020701772  0.0216640760 -0.0074954594 -0.011503983
## [48,]  0.006501843 -0.0818872021  0.0467156802  0.0134131715  0.062517460
## [49,]  0.052802567  0.0730204012 -0.0398023605  0.0027363944 -0.031526955
## [50,] -0.023921300 -0.0209409284  0.0091207526 -0.0044282453  0.002600460
##                 [,41]         [,42]         [,43]         [,44]         [,45]
##  [1,] -0.033154651 -2.467190e-02 -0.0122599052 -0.0244197010 -0.033349941
##  [2,]  0.127076068  9.386723e-02 -0.0243498905  0.0077021350  0.006083641
##  [3,] -0.228794609 -1.996010e-01  0.1011583966  0.0824039110  0.051604568
##  [4,]  0.213832075  1.845428e-01 -0.0831462658 -0.1103236700 -0.001179349
##  [5,] -0.001288645 -1.215812e-03  0.0323353137  0.0806179637  0.006712018
##  [6,] -0.171586051 -1.436041e-01  0.0063985061 -0.0127386355 -0.030582571
##  [7,]  0.172757596  1.900762e-01 -0.0692487487 -0.0688135418 -0.009000541
##  [8,] -0.132778562 -9.707588e-02  0.0917202513  0.0786009813  0.014083940
##  [9,]  0.064436154  2.930240e-02 -0.0725095264 -0.0739630231  0.017429799
## [10,] -0.058772573 -1.124889e-01  0.1061973398  0.0604337435 -0.036265625
## [11,]  0.026868550  1.972314e-01 -0.2259001295 -0.0359402138 -0.004904570
## [12,]  0.031224326 -2.724475e-01  0.2348832425  0.0364068948  0.064039720
## [13,]  0.017332539  1.439179e-01 -0.0027330064 -0.0165633313 -0.022192292
## [14,] -0.015937588  1.692740e-01 -0.2677138581 -0.0436043134 -0.113715187
## [15,] -0.009428144 -3.144737e-01  0.3148855747  0.0885962107  0.099560801
## [16,]  0.041077657  2.101837e-01 -0.1591235068 -0.0603384688  0.008762020
## [17,] -0.077112629  2.345589e-02 -0.0055740282 -0.0110858343 -0.034758696
## [18,] -0.066263714 -1.190114e-01  0.0310654095  0.0565037910 -0.043759583
## [19,]  0.271675490  3.877674e-02  0.1204062815 -0.0916688276  0.260436810
## [20,] -0.250131985 -1.090703e-01 -0.2916458456  0.1089217744 -0.355053478
## [21,] -0.039628826  2.525008e-01  0.2848715448 -0.0563173644  0.126472558
## [22,]  0.226178094 -9.281390e-02 -0.0476819049 -0.0046102684  0.191504414
## [23,]  0.013584783 -2.364755e-01 -0.2336501063  0.0348943634 -0.287485706
## [24,] -0.313909977  3.451488e-01  0.3109496964 -0.0317953853  0.155932320
## [25,]  0.225800304 -1.854876e-01 -0.1939362859 -0.0137596635 -0.039968275
## [26,]  0.044976493 -3.938780e-02  0.0481013369  0.0114300259  0.033117534
## [27,] -0.128844403  1.250075e-01  0.0322023476  0.0890804570 -0.033173733
## [28,] -0.003021091 -5.020780e-02 -0.0627115147 -0.2918894164  0.005519358
## [29,]  0.193458838  4.092175e-03  0.0833797344  0.4877030760 -0.021965390
## [30,] -0.186771152 -6.251646e-02 -0.0401250502 -0.3922654408  0.056428369
## [31,] -0.004823573  7.957326e-02 -0.0529625622 -0.0120495242 -0.023140048
## [32,]  0.090479774  2.159380e-02  0.0408773741  0.3681221562 -0.041832592
## [33,]  0.004436383 -1.422225e-01  0.0699605568 -0.4129661680  0.050773880
## [34,] -0.134835144  1.705556e-01 -0.1332144643  0.2216019064  0.007031922
## [35,]  0.150229861 -9.531632e-02  0.1148563254 -0.0496452711 -0.084115385
## [36,] -0.004607971  2.128136e-03 -0.0529040292  0.0004676464  0.116596323
## [37,] -0.178693533 -9.422026e-03 -0.0034339543  0.0052976351 -0.077190956
## [38,]  0.155047358  1.102028e-01 -0.0279306595  0.0655632001  0.117479733
```

```
## [39,]   0.038429047 -1.205352e-01  0.1462730398 -0.1699812372 -0.297237213
## [40,]  -0.159895181 -1.909440e-02 -0.2124144943  0.1071476454  0.350539442
## [41,]   0.072151557  1.129426e-01  0.1091378281  0.0607053997 -0.105493080
## [42,]   0.182517654 -2.109712e-02  0.1100746251 -0.1115038999 -0.230407273
## [43,]  -0.242278593 -1.460427e-01 -0.2540900448  0.0423421755  0.379219296
## [44,]  -0.034229550  2.067207e-01  0.2215061587  0.0039615468 -0.319967916
## [45,]   0.261034982 -1.449945e-01 -0.1069563097  0.0186698857  0.178385413
## [46,]  -0.210042608  7.279376e-02  0.0216752940 -0.0300131813 -0.039370707
## [47,]   0.032642194 -3.957835e-02  0.0115880583  0.0127961567 -0.029719606
## [48,]   0.083541738  1.915175e-02 -0.0098903712 -0.0224811428  0.010270418
## [49,]  -0.071008484 -4.150363e-03  0.0003220428  0.0283835576  0.015491057
## [50,]   0.017048169 -3.647402e-05  0.0012807033 -0.0096163848 -0.007644948
##                 [,46]          [,47]          [,48]         [,49]          [,50]
##  [1,] -9.450002e-03 -0.0015489474 -0.0059403727 -0.006521152 -0.0032225385
##  [2,]  8.422231e-03  0.0141282056 -0.0303920328  0.038010027  0.0087913725
##  [3,] -5.381042e-02 -0.0387241935  0.1643055292 -0.093310506 -0.0082212762
##  [4,]  1.878896e-01  0.0593830793 -0.3749691265  0.150264978  0.0188871689
##  [5,] -2.702012e-01 -0.0804964057  0.5101462014 -0.165893939 -0.0487550812
##  [6,]  2.444518e-01  0.0951800659 -0.4301143975  0.111037928  0.0476830441
##  [7,] -1.461977e-01 -0.0551771642  0.2578143779 -0.056709383 -0.0090347003
##  [8,]  5.231132e-02 -0.0010579821 -0.0949516094  0.021872226 -0.0099441863
##  [9,] -2.947178e-03  0.0030146987  0.0081673229  0.004069425 -0.0003694797
## [10,] -3.639439e-02  0.0053253082 -0.0396888653 -0.022642348 -0.0122766515
## [11,]  8.570604e-02  0.0039188188  0.1003818526  0.107132352  0.1112808685
## [12,] -1.897666e-01 -0.0309935698 -0.1965436126 -0.211771416 -0.2786733092
## [13,]  2.835359e-01  0.0516152733  0.2806722049  0.265215530  0.3689336284
## [14,] -2.767012e-01 -0.0294420078 -0.2466689300 -0.228873964 -0.2999566455
## [15,]  1.689635e-01  0.0158972170  0.1112308949  0.129049950  0.1629415333
## [16,] -5.096525e-02 -0.0026290469 -0.0022159097 -0.046389856 -0.0683795139
## [17,]  3.912275e-04 -0.0190958612 -0.0016585344 -0.011048253  0.0345924492
## [18,]  1.876456e-02  0.0075860122 -0.0174242284  0.006932029  0.0077042636
## [19,]  6.905779e-03 -0.0015961270  0.0042203881  0.022809945 -0.1069059914
## [20,] -1.050033e-01 -0.0194920997 -0.0215492846 -0.039564871  0.2580336713
## [21,]  2.236469e-01  0.1036027283  0.1085441486  0.075253954 -0.4142288028
## [22,] -3.001182e-01 -0.1667572909 -0.1868842827 -0.081396057  0.4491228049
## [23,]  2.614772e-01  0.1308184255  0.1719410360  0.062868911 -0.3209526664
## [24,] -1.322220e-01 -0.0395103766 -0.1071283198 -0.069102862  0.1660057070
## [25,]  3.592139e-02 -0.0178811593  0.0643170928  0.052875725 -0.0725401651
## [26,] -7.384103e-03  0.0184049621 -0.0467818832 -0.003166692  0.0142571914
## [27,]  1.117438e-02  0.0073340160  0.0284491376 -0.029060635  0.0030065855
## [28,] -1.074729e-02 -0.0723248229  0.0150490940  0.038655084  0.0018116692
## [29,]  1.238629e-02  0.1933312697 -0.0452740709 -0.105352406  0.0332663753
## [30,] -4.947666e-02 -0.3448357579  0.0260621516  0.254960261 -0.0942220256
## [31,]  8.157887e-02  0.4577833927  0.0168221444 -0.348459507  0.1272822182
## [32,] -5.109918e-02 -0.4150850721 -0.0530917168  0.290062803 -0.1113243711
## [33,]  2.677227e-03  0.2318228878  0.0594244247 -0.161899551  0.0716757407
## [34,]  1.737010e-02 -0.0760790945 -0.0262194700  0.072177550 -0.0523693197
## [35,] -1.374481e-02  0.0151158127 -0.0124916599 -0.032881516  0.0448067255
## [36,] -8.357208e-03 -0.0025439097  0.0188535066  0.023705924 -0.0242949601
## [37,] -9.612706e-05 -0.0078761551 -0.0119314028 -0.015834052  0.0037230181
## [38,]  8.051830e-02  0.0140153462  0.0053790570 -0.038507747  0.0004061119
## [39,] -2.044566e-01  0.0557259042 -0.0065603675  0.160654869  0.0126970571
## [40,]  2.969410e-01 -0.2078069022  0.0233005455 -0.296429467 -0.0060655430
## [41,] -3.070945e-01  0.3228520562 -0.0137542975  0.351040579 -0.0358670818
```

```
## [42,]   2.505778e-01 -0.3193185002 -0.0171749006 -0.301887261  0.0629946347
## [43,]  -1.540116e-01  0.2197228700  0.0199223776  0.199029760 -0.0538916432
## [44,]   5.588458e-02 -0.0909259956 -0.0099012419 -0.101463368  0.0307670437
## [45,]  -9.872489e-03  0.0070912323  0.0105263233  0.045113533 -0.0049948518
## [46,]   7.117653e-03  0.0115327333 -0.0066508736 -0.017829544 -0.0084706629
## [47,]  -5.728061e-03 -0.0017080848 -0.0016681204 -0.001581142  0.0028682588
## [48,]   2.281965e-03 -0.0046194425  0.0029830222  0.008860481  0.0047940924
## [49,]  -1.004249e-03  0.0025104278 -0.0014584119 -0.005568806 -0.0058842996
## [50,]  -4.337310e-05 -0.0001864607  0.0005749756  0.001492108  0.0025110874
```

```
print(svd_x$u)
```

```
##                [,1]          [,2]          [,3]          [,4]          [,5]
##  [1,] -0.06221996 -0.0141925338 -0.0152061449  0.0586790498  0.0161976783
##  [2,] -0.06922475  0.0592156152  0.0792841881  0.0803725345 -0.0652031371
##  [3,] -0.06087905 -0.0607232093  0.0349375980  0.0239198393  0.0165337717
##  [4,] -0.06631733 -0.0771318448  0.0531129930  0.0346266402  0.0246299196
##  [5,] -0.06728824  0.0308817797 -0.0588520312  0.0096287797 -0.1704849956
##  [6,] -0.07399416  0.0812311170  0.0528277905  0.0479437866 -0.3885723251
##  [7,] -0.07367258  0.0838589922  0.0944398629  0.0294746323  0.3714484920
##  [8,] -0.05970668 -0.0411336241 -0.0441301519 -0.0057629463  0.0025955875
##  [9,] -0.07957619  0.0155591724  0.0261454799 -0.0835414628 -0.0261255134
## [10,] -0.08297278  0.0297025623  0.0005014933 -0.1257017439  0.1375739115
## [11,] -0.07432219  0.0996731286  0.0885985846  0.0547829501  0.2268426272
## [12,] -0.05002999 -0.0741093409 -0.0876281966 -0.0103722056 -0.0033290990
## [13,] -0.06967338 -0.0376920621  0.0859926219 -0.0967435505 -0.0036053809
## [14,] -0.07234986 -0.0291224644  0.0795739435 -0.1179451859 -0.0074807410
## [15,] -0.07599234 -0.0240545043  0.0760046212 -0.1363235399 -0.0125402266
## [16,] -0.05872249 -0.0731289884  0.0379928904  0.0381586709  0.0252487976
## [17,] -0.06178175 -0.0772997802  0.0462604798  0.0206890919  0.0114246628
## [18,] -0.06803740 -0.0999772884  0.1097990291  0.0997707558  0.0193422195
## [19,] -0.06745244 -0.0552380824 -0.0748971336 -0.0348138890 -0.0035389828
## [20,] -0.06562573 -0.0564910080  0.0343647292  0.0200665025  0.0242931185
## [21,] -0.06645393 -0.0817420627  0.0736649916  0.0140660621 -0.0087658621
## [22,] -0.06451030 -0.1081896058  0.0895426557  0.1468390603  0.0204957252
## [23,] -0.05119538 -0.0549934363 -0.0940154002  0.0217548321 -0.0126050783
## [24,] -0.08078518 -0.0046995222  0.0153797780 -0.1455801710  0.0005577100
## [25,] -0.06682545 -0.0563978174 -0.0562787608  0.0259435664 -0.0289361012
## [26,] -0.05587276 -0.0481833003 -0.1083989530  0.0800731849  0.0070758513
## [27,] -0.05902225 -0.0504071656 -0.1087479520  0.0825445422  0.0190713130
## [28,] -0.05216176 -0.0564767897 -0.0167247087  0.0726260485  0.0050074650
## [29,] -0.05216176 -0.0564767897 -0.0167247087  0.0726260485  0.0050074650
## [30,] -0.06602005 -0.0390709102 -0.0123678814  0.0272316487  0.0197582943
## [31,] -0.06160590  0.0052450196 -0.1738150998 -0.0041550827 -0.0646320138
## [32,] -0.06274752 -0.0113388092 -0.0346002182  0.0177166031  0.0270637366
## [33,] -0.08779250  0.0075601931  0.0114971911 -0.0043239946  0.0261489873
## [34,] -0.07371092  0.1417000992 -0.3485072274 -0.0973569103  0.0127654159
## [35,] -0.08581474  0.1859414913 -0.2527943018 -0.1647227911  0.0337566845
## [36,] -0.06435068  0.0308395958 -0.0631695040  0.0412538710  0.0063716748
## [37,] -0.06600171  0.0295800646 -0.0132874103  0.0512570036  0.0416098295
## [38,] -0.08460759  0.0197292921  0.1190822009  0.0175401823 -0.0483670629
## [39,] -0.08162207  0.0687906215  0.0228623194 -0.0433198324 -0.1685510674
## [40,] -0.07582352  0.0684303376  0.0380432209  0.0340474770 -0.2168311310
## [41,] -0.08614117  0.0729333177  0.1080674286 -0.0314913044 -0.1015362904
```

```
##  [42,]  -0.07123580   0.0739817248   0.0721118091   0.1552308596   0.0127770996
##  [43,]  -0.09840607   0.1972600946   0.1056394280   0.0742727659   0.1745626476
##  [44,]  -0.10663769   0.2205231413   0.1214441036  -0.0057050297   0.1295845645
##  [45,]  -0.07027117   0.1463009081   0.0526734758   0.1682955416   0.0503943302
##  [46,]  -0.06827774  -0.0553038000   0.0710374757  -0.0224622844  -0.0059236152
##  [47,]  -0.07146466  -0.0493227880   0.0775563355  -0.0296522254  -0.0081042976
##  [48,]  -0.05002999  -0.0741093409  -0.0876281966  -0.0103722056  -0.0033290990
##  [49,]  -0.05260465  -0.0648494844  -0.0124867223   0.0131598852   0.0199359607
##  [50,]  -0.06156984  -0.0809391142   0.0536414057   0.0325916275   0.0234996227
##  [51,]  -0.07599234  -0.0240545043   0.0760046212  -0.1363235399  -0.0125402266
##  [52,]  -0.05778845  -0.0840887012  -0.0216101136   0.0396366059   0.0057073905
##  [53,]  -0.05505706  -0.0623294871  -0.0140825741   0.0091874176   0.0164092482
##  [54,]  -0.05872249  -0.0731289884   0.0379928904   0.0381586709   0.0252487976
##  [55,]  -0.06033239  -0.0756142403   0.0238510938   0.0226096034   0.0123482564
##  [56,]  -0.05819918  -0.0849866285  -0.0216144663   0.0384818729   0.0061989850
##  [57,]  -0.06091512  -0.0735014373   0.0399649626   0.0138652959   0.0133330229
##  [58,]  -0.05233616  -0.0619048078  -0.0486566061   0.0142982491  -0.0013793103
##  [59,]  -0.05362168  -0.0584835945  -0.0473610259  -0.0025575211   0.0053118430
##  [60,]  -0.06952426  -0.0338495939  -0.0120902788  -0.0887058466   0.0034639616
##  [61,]  -0.06284855  -0.0761277177   0.0380184206   0.0276432465   0.0182800622
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##  [63,]  -0.06696323  -0.0538711730   0.0108591070  -0.0062923010   0.0298108651
##  [64,]  -0.06075288  -0.0812907210  -0.0113438198   0.0307963290   0.0076386780
##  [65,]  -0.05524557  -0.0631095668  -0.0639439560   0.0001400155   0.0112972756
##  [66,]  -0.06651218  -0.0562051023  -0.0691128831  -0.0349988877  -0.0044123590
##  [67,]  -0.05215855  -0.0762337353  -0.0142333747   0.0501817203   0.0159752625
##  [68,]  -0.06130530  -0.0417011355   0.0001733758  -0.0237774511   0.0096996830
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##  [70,]  -0.05299089  -0.0552327318  -0.0394472146   0.0089322834   0.0049811270
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## [109,] -0.05851321  0.0105353477 -0.0231546265  0.0406084347  0.0262341584
## [110,] -0.06435068  0.0308395958 -0.0631695040  0.0412538710  0.0063716748
## [111,] -0.05945050  0.0305699798 -0.0503022631  0.0275938458  0.0143514972
## [112,] -0.06262266  0.0370563531 -0.0575743444  0.0492888940  0.0322238622
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##   [2,]  -1.021566e-01 -6.248713e-02 -0.0654378714 -0.0147001912  0.0380110862
##   [3,]   4.858632e-02  6.596341e-03  0.0201160496 -0.0513134032 -0.0044979830
##   [4,]   1.569249e-01 -1.943299e-02  0.0854500302  0.0185676638  0.1889792742
##   [5,]   1.694713e-01  2.264082e-02  0.1553987565  0.1919460573 -0.2278651316
##   [6,]   5.109800e-02 -8.341756e-02  0.1548468070  0.0417296130 -0.3073354731
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##   [8,]   9.559028e-02 -1.470340e-04  0.0267432428  0.0119975444  0.0277894244
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##  [10,]  -5.834056e-02  1.621556e-03 -0.0656878980  0.0910372015 -0.1341555272
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##  [25,]  -6.906565e-02 -9.186724e-02  0.0685688081  0.0829421655  0.0735986702
##  [26,]   1.540134e-02  2.478430e-02 -0.0765614475 -0.0574109389 -0.0046539536
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## [199,] -5.510100e-02  1.601708e-02 -0.0006669260  0.0216600093 -0.0243260150
## [200,] -7.373139e-02 -1.414804e-02  0.0993522622  0.0178838075  0.0095864844
## [201,] -5.572973e-02  2.145534e-02  0.0143846187  0.0626149591  0.0112831806
## [202,] -4.460943e-02 -1.955415e-02  0.0254092018  0.0383433072 -0.0153181648
## [203,] -7.396727e-02  5.045753e-03  0.0216638593 -0.0247608628 -0.0058068264
```

```
## [204,]   1.616198e-01   1.061342e-02   0.0686976013  -0.1771432120   0.0404657532
## [205,]   6.249604e-03   6.923458e-03  -0.0532760549   0.0648097336   0.0353192460
## [206,]  -3.922527e-02  -5.238526e-03   0.0048269714   0.0759760270  -0.0079441506
## [207,]  -7.494065e-02   1.744190e-02  -0.0159003391   0.0115701418   0.0253102074
## [208,]   4.519875e-04  -6.193012e-02  -0.0356718641  -0.0335613451   0.0022466339
## [209,]  -3.127711e-02  -9.430723e-03   0.0949235091   0.0598273342   0.0354099626
## [210,]   6.662006e-02   5.997247e-02   0.0410182093   0.0854360908  -0.0215556698
## [211,]  -1.487760e-01  -2.918116e-02  -0.2059088586  -0.1785683703   0.0762537809
## [212,]  -2.722370e-02   7.705312e-02   0.0607023710   0.0053691739   0.0218465544
## [213,]  -4.353822e-02  -1.102309e-03   0.0358503703   0.0399270546   0.0210989680
## [214,]  -5.933400e-02   6.730355e-02   0.0566999092  -0.0382646594   0.0261333747
## [215,]  -3.096444e-02   1.701702e-01   0.0170953356  -0.0559610575   0.0321017718
##                 [,11]          [,12]          [,13]          [,14]          [,15]
##   [1,]   0.1092876336  -0.0483191327   0.0079168112   0.0172699372   0.0060523399
##   [2,]  -0.0041591617   0.0249400032  -0.0409552178   0.0184425611   0.0964000170
##   [3,]  -0.0150911518  -0.0037915766  -0.0032041446  -0.0165425650   0.0004774274
##   [4,]  -0.0442998292   0.0634180327   0.0400596763   0.0475236817  -0.1508283209
##   [5,]  -0.1199170617  -0.0252892522   0.0548467919   0.1093684208   0.0092754276
##   [6,]  -0.1072562850   0.0068626243   0.0762697617   0.0930234797  -0.1770273610
##   [7,]  -0.0498238501   0.2903618381   0.1814513332   0.1520821212   0.0691671077
##   [8,]  -0.0501369028   0.0221012982  -0.0567148108   0.0267226916   0.0108470402
##   [9,]   0.0392109327  -0.0387132064  -0.0681693305   0.0679182866   0.1220961757
##  [10,]  -0.0244084555  -0.1458695362   0.1146416404   0.0607999015  -0.0007189017
##  [11,]  -0.4321573935  -0.1139971618   0.2197927438  -0.0714983371  -0.1628644907
##  [12,]  -0.0748619927   0.0012867604  -0.0356553518  -0.0562842704  -0.1627925120
##  [13,]  -0.0388130184  -0.0033900956  -0.0013945527  -0.0416260904  -0.0324820117
##  [14,]  -0.0564530903   0.0274432152  -0.0315669498  -0.0106137536  -0.0142776386
##  [15,]  -0.0537770922   0.0413960427  -0.0408182412  -0.0260358076  -0.0175617597
##  [16,]  -0.0156870488  -0.0033098953  -0.0148997995  -0.0103971197  -0.0131852015
##  [17,]   0.0182850722  -0.0396978243   0.0300938828  -0.0114521880  -0.0219962100
##  [18,]  -0.0218897467  -0.0355880207  -0.0094051185   0.0188818309   0.0151533737
##  [19,]  -0.0596036608   0.1108369539  -0.0767937505  -0.0169627213  -0.0279445803
##  [20,]  -0.0093308265   0.0482312720   0.0535194565   0.0092101384  -0.0337816383
##  [21,]   0.0229550141  -0.1110281009   0.1461107442   0.0563595925   0.0401652189
##  [22,]  -0.0053005227  -0.0326136760   0.0111867941  -0.0024353843   0.0480289417
##  [23,]  -0.0330461206   0.0334117218  -0.0468570957  -0.0473306889  -0.0669943610
##  [24,]  -0.0154494721   0.0347097808  -0.0272073424  -0.0501934539  -0.0062656606
##  [25,]  -0.0104022296   0.0561611828  -0.0411799204   0.0194148942  -0.0467504596
##  [26,]  -0.1822107745  -0.0101325236   0.0178371452   0.0756342257   0.0716473575
##  [27,]  -0.1462665989   0.0058894070   0.0058591481   0.0961714320   0.0388429452
##  [28,]  -0.1228607865   0.0671779226   0.0330527845   0.0815098461   0.0603989099
##  [29,]  -0.1228607865   0.0671779226   0.0330527845   0.0815098461   0.0603989099
##  [30,]   0.0618637762  -0.0862848139   0.0287220852  -0.0226507181  -0.0035429483
##  [31,]   0.0761435319  -0.0882076671  -0.0367596722  -0.0949873243  -0.0067962389
##  [32,]  -0.0372400244   0.0394229929   0.1012735870   0.0954972352   0.0439928262
##  [33,]  -0.0064525493   0.0057902877  -0.0823395423  -0.0480024712   0.0762808974
##  [34,]  -0.1380269417  -0.0941428003   0.1020367707  -0.0661953016   0.1066501112
##  [35,]  -0.1533511136  -0.1606978809   0.1057899573   0.0358789260   0.1616501285
##  [36,]   0.0510205428   0.1534733665  -0.0710802048   0.0418174312   0.0298380319
##  [37,]   0.0609349545  -0.0650986739   0.0318131610  -0.0395134168   0.0806938287
##  [38,]  -0.0890791477   0.0881505556  -0.0481500772   0.0070043365   0.0014749158
##  [39,]   0.0588750520   0.0717820676   0.1299968710  -0.0132217443   0.0601597791
##  [40,]   0.0319419769  -0.0192047658   0.1279627975   0.0589121754  -0.0771990241
##  [41,]  -0.0954340356   0.0226214779  -0.0930042242  -0.0335015134  -0.0551772802
```

```
##  [42,]  -0.0580329072   0.0368680693   0.0113555592  -0.0284809721   0.0886848269
##  [43,]   0.0052233936  -0.2505563088   0.1587885145  -0.4998615878  -0.0956814393
##  [44,]   0.0134858145  -0.4322776321  -0.1853245193   0.5756869940  -0.0771028523
##  [45,]  -0.1867996038   0.1255640855  -0.1170207808  -0.1092314148  -0.1167604456
##  [46,]  -0.0298251070  -0.0554815430   0.0685598585   0.0484504946   0.0472002011
##  [47,]  -0.0268986253  -0.0485300718   0.0875536045   0.0449569116   0.0448430029
##  [48,]  -0.0748619927   0.0012867604  -0.0356553518  -0.0562842704  -0.1627925120
##  [49,]  -0.0036787425   0.0123538576  -0.0067163630   0.0064423487   0.0325847465
##  [50,]   0.0089552702  -0.0614913276   0.0273295456  -0.0332025555  -0.0047503425
##  [51,]  -0.0537770922   0.0413960427  -0.0408182412  -0.0260358076  -0.0175617597
##  [52,]   0.0171839650  -0.0130268831   0.0172603301  -0.0070734511  -0.0321238203
##  [53,]  -0.0132574335   0.0148135549   0.0062572199  -0.0272548738  -0.0026351402
##  [54,]  -0.0156870488  -0.0033098953  -0.0148997995  -0.0103971197  -0.0131852015
##  [55,]   0.0004649829  -0.0476377787  -0.0031870316   0.0194155789  -0.0059108065
##  [56,]   0.0459359699  -0.0271038444   0.0330868697   0.0004404079  -0.0168564712
##  [57,]   0.0288126215  -0.0437771654   0.0216503877   0.0036820037  -0.0202977869
##  [58,]   0.0151075298   0.0452750187   0.0807449311   0.0297713039  -0.1164396449
##  [59,]  -0.0124957555  -0.0065105581  -0.0430117957   0.0111114595  -0.0327922477
##  [60,]   0.0634973143  -0.0267355648   0.0002198763   0.0049546565   0.1180017537
##  [61,]   0.0194320369  -0.0399264913   0.0222872645  -0.0144588841   0.0086837529
##  [62,]   0.0194320369  -0.0399264913   0.0222872645  -0.0144588841   0.0086837529
##  [63,]  -0.0188726418  -0.0009694460  -0.0274569186  -0.0177977919   0.0090757933
##  [64,]   0.0219158577  -0.0267064838   0.0011938445  -0.0147712886  -0.0214851489
##  [65,]  -0.0259360031   0.0122864308  -0.0289800722  -0.0097494495  -0.0142691562
##  [66,]  -0.0434184171   0.0947725428  -0.0620418969   0.0087844543  -0.0507770754
##  [67,]  -0.0001677531  -0.0054053889  -0.0298844897   0.0239350666   0.0060486938
##  [68,]   0.0091223830  -0.0251008159  -0.0255060230   0.0281987068   0.0112113337
##  [69,]  -0.0147707901  -0.0220748256   0.0176284475   0.0012327825   0.0068541361
##  [70,]  -0.0021986530   0.0335730754   0.0708626750   0.0070638673  -0.0478544123
##  [71,]  -0.0105835376  -0.0125147913  -0.0304634390  -0.0032353120  -0.0202987574
##  [72,]   0.0071810149  -0.0111476481  -0.0169998209  -0.0207577715   0.0008565249
##  [73,]   0.0158323289   0.0079021934   0.0124196850  -0.0567660066   0.0245666381
##  [74,]   0.0164663926  -0.0034047911  -0.0280670028   0.0418546398   0.0396640562
##  [75,]  -0.0518772117  -0.0005602956   0.0203790984  -0.0269670234   0.0252289683
##  [76,]   0.0226129561  -0.0207331173   0.0053773190   0.0081338251   0.0178180179
##  [77,]  -0.0538347139  -0.0147441471  -0.0364210822  -0.0220089407   0.0873184300
##  [78,]   0.0257143854  -0.0149748873  -0.0022743323  -0.0376566246   0.0028075632
##  [79,]  -0.0703898950   0.0564723313  -0.0631870172   0.0344212083  -0.0637311964
##  [80,]  -0.0343904787   0.0039880285  -0.0244493654  -0.0108957980   0.0487181740
##  [81,]  -0.0195532165   0.0313950679   0.0873603825  -0.0066507707  -0.0432210184
##  [82,]   0.0562898484  -0.0012843844   0.0302311199  -0.0056225902  -0.0202111091
##  [83,]   0.0027966463  -0.0278954149  -0.0188962174   0.0022881753   0.0074839858
##  [84,]   0.0107558581   0.0016096866  -0.0400725736  -0.0164116161   0.0299399142
##  [85,]   0.0315067255   0.0138148879  -0.0236302535  -0.0129037398  -0.0001119017
##  [86,]  -0.0056725126  -0.1539194988  -0.0664866228  -0.0775459444   0.0271675183
##  [87,]  -0.0221498474   0.0279095513  -0.0204041390  -0.0258239754   0.0298006313
##  [88,]   0.0346100900  -0.0003768446   0.0041281272   0.0021676102   0.0081108370
##  [89,]   0.0206319766  -0.1721034922  -0.0593949281  -0.0370004106  -0.0250387662
##  [90,]   0.0646580533  -0.0042611390   0.0054967278  -0.0200766999  -0.0362963744
##  [91,]   0.0875281714  -0.0416290243   0.0092737861  -0.0156611222  -0.0061222611
##  [92,]   0.0197728378  -0.0157302163   0.0280055998   0.0093414042  -0.0637107079
##  [93,]   0.0368605201   0.0208045159  -0.0242866356   0.0039383806  -0.0787646251
##  [94,]   0.0654709553  -0.0208916050  -0.0165506808  -0.0175394935   0.0200095540
##  [95,]   0.0761198600  -0.0007991676   0.0053822996   0.0177248236  -0.0116875720
```

```
## [96,]    0.0560179276   0.0186540650  -0.0033553815   0.0089632808   0.0015928978
## [97,]   -0.0112786660   0.0302814266   0.0285992004  -0.0557443574   0.0678185657
## [98,]    0.0220454441   0.0247799470  -0.0358954464   0.0138446909   0.0345536651
## [99,]    0.1396648980   0.0621641299   0.3301334085   0.0504095899  -0.1964909083
## [100,]   0.0631152213   0.0033818785  -0.0240637229   0.0217470542   0.0726221093
## [101,]   0.0457006482  -0.0113621901   0.0270112811  -0.0055051065   0.0416368438
## [102,]   0.0085110285   0.0683977774   0.1016298247   0.0308135945  -0.0260325445
## [103,]   0.0717845081   0.0199125665  -0.0123776075   0.0161714955  -0.0247854992
## [104,]   0.0092947258   0.0410636510   0.1337049558   0.0166586855   0.0396726121
## [105,]  -0.0487019030   0.0387199172  -0.0180202555   0.0034049727   0.0436730443
## [106,]   0.0739803209   0.0198912972   0.0045907008  -0.0011129567   0.0184779910
## [107,]   0.0858414624  -0.0422702993   0.0308569038  -0.0280908316   0.0916481359
## [108,]   0.0061260800   0.0282146509  -0.0495137691  -0.0237711152   0.0534449737
## [109,]   0.0506239121   0.0257660531  -0.0128861518   0.0132720783   0.0864334278
## [110,]   0.0510205428   0.1534733665  -0.0710802048   0.0418174312   0.0298380319
## [111,]   0.0894910957  -0.0072311818  -0.0365078174  -0.0066100413  -0.0165558352
## [112,]   0.0961485890   0.0906678920  -0.0367015231   0.0413632210   0.0073781536
## [113,]   0.0437311316   0.0534189434  -0.0267861015   0.0316258605   0.0272896247
## [114,]  -0.0208788164   0.0212961193   0.1426592912   0.0072779128   0.1070296328
## [115,]   0.0721385886   0.0203836726   0.0053349798   0.0032445087   0.0592043169
## [116,]   0.0609349545  -0.0650986739   0.0318131610  -0.0395134168   0.0806938287
## [117,]  -0.0890791477   0.0881505556  -0.0481500772   0.0070043365   0.0014749158
## [118,]  -0.0062194115   0.0609143381  -0.0511928487  -0.0221799640   0.0254248135
## [119,]   0.0986845289  -0.0085439491  -0.0567205208  -0.0542895006   0.0401859815
## [120,]   0.0886940693   0.0986271993  -0.0079950808   0.0048726943   0.0184476067
## [121,]   0.0268926652   0.0463891288  -0.0786898866   0.0123276548   0.0016152178
## [122,]   0.0721955259   0.0554990795   0.0082055667  -0.0248786858   0.0053685198
## [123,]   0.0319419769  -0.0192047658   0.1279627975   0.0589121754  -0.0771990241
## [124,]   0.0496029627   0.0673881979   0.0005382804   0.0033498028   0.0297382470
## [125,]   0.1022315476  -0.0900829284   0.0705569085  -0.0672101666   0.1341383567
## [126,]   0.0492154317  -0.0263069531  -0.0524345312  -0.0133124246   0.0114745016
## [127,]  -0.0429919339  -0.0458623473  -0.0403863938  -0.1166788892  -0.1392853824
## [128,]   0.0062928322   0.0222393483  -0.0365918638  -0.0161860084   0.0226342261
## [129,]   0.0163711676   0.0355739535  -0.0234699698  -0.0278422561  -0.0102890050
## [130,]   0.0135952291   0.0004581846   0.0143499662  -0.0088345122   0.0947740789
## [131,]  -0.0854787933  -0.0894279019  -0.0248490230   0.0212026137  -0.0478499475
## [132,]  -0.0495759503   0.0144788681  -0.1575252106   0.1154564260   0.0857105930
## [133,]  -0.0484877355   0.0002276341  -0.0868721531   0.0274920648  -0.0361945809
## [134,]  -0.0349229466   0.0015712963  -0.0334001737  -0.0150883831  -0.0106782700
## [135,]   0.0151075298   0.0452750187   0.0807449311   0.0297713039  -0.1164396449
## [136,]  -0.0518772117  -0.0005602956   0.0203790984  -0.0269670234   0.0252289683
## [137,]  -0.1320605465   0.0580680183   0.0040892756   0.0382602861   0.0557433098
## [138,]  -0.1822107745  -0.0101325236   0.0178371452   0.0756342257   0.0716473575
## [139,]   0.0516547757  -0.0592400747  -0.0733532441  -0.0213293414  -0.0021118898
## [140,]  -0.1069409266  -0.0731644008   0.0419235878   0.0856716342  -0.0747872691
## [141,]  -0.0684209168  -0.0004689763  -0.0318922700  -0.1057385851   0.2650705537
## [142,]   0.0588750520   0.0717820676   0.1299968710  -0.0132217443   0.0601597791
## [143,]  -0.0913387230  -0.0304375197   0.1244223523   0.0521129919   0.1886134119
## [144,]  -0.0302558504  -0.0032694925  -0.0433386199  -0.0200240706   0.0155094731
## [145,]  -0.0618199193   0.0362102002  -0.0306897509  -0.0382738020  -0.0473175697
## [146,]   0.0225780168   0.0038074522  -0.0025553936  -0.0058528805   0.0258198000
## [147,]   0.0246017547  -0.0298859197  -0.0195530413   0.0199182543   0.0372832245
## [148,]   0.0284210543  -0.0339862105   0.0262338744   0.0144809000  -0.0221239584
## [149,]  -0.0192739469  -0.0108184672   0.0106981399  -0.0044272868  -0.0243002558
```

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## [150,]   0.0219158577 -0.0267064838  0.0011938445 -0.0147712886 -0.0214851489
## [151,]   0.0607795957 -0.0401517497  0.0569746235 -0.0463635003 -0.0351287578
## [152,]  -0.0043206173 -0.0039326726 -0.0022861958  0.0009481514  0.0119747520
## [153,]  -0.0088894167 -0.0046194660 -0.0147964720 -0.0081793805  0.0187899171
## [154,]   0.0231557251 -0.0002748372 -0.0063969187 -0.0242251864 -0.0479897962
## [155,]  -0.0658355362  0.0694461696 -0.0842447889 -0.0194776372  0.0211956497
## [156,]  -0.0238684223  0.0021377832 -0.0952654058 -0.0299618699  0.0468962104
## [157,]   0.0179461459  0.0293232227 -0.0275439010 -0.0043095105 -0.0666770741
## [158,]   0.0281336095  0.0404546121 -0.0205143667  0.0226815697  0.0074771446
## [159,]   0.0101145471 -0.0132387684 -0.0464091705  0.0315508140 -0.0044611696
## [160,]   0.0079496108  0.0713398785 -0.0521191109  0.0577883446  0.0029089769
## [161,]   0.0850812310 -0.0455423345  0.0011551123 -0.0185057551  0.0478633565
## [162,]   0.0471401365  0.0615888123 -0.0230878485 -0.0058901827  0.0255027280
## [163,]   0.0096300327 -0.0133404578 -0.0160724999 -0.0018801081  0.0371163883
## [164,]   0.0667324315  0.0358091059 -0.0503086042  0.0362828741  0.0290587498
## [165,]   0.0309456148  0.0414475921 -0.0577537289  0.0274427210 -0.0655590470
## [166,]   0.0593102466  0.0223727312 -0.0370468110 -0.0812121702 -0.0516038311
## [167,]   0.0661373865  0.0657307065 -0.0057932349  0.0106803021  0.0568088279
## [168,]   0.1319995228  0.0063025366 -0.0726366563  0.0353518161 -0.1613326723
## [169,]   0.1084204874 -0.0346977972  0.0310743565 -0.0177779775  0.0252076496
## [170,]  -0.0094098724  0.0131885339 -0.0097063004  0.0099264967  0.0434517048
## [171,]   0.0910637040 -0.0467899939 -0.0136602994 -0.0579622899 -0.0713482420
## [172,]  -0.0130512807 -0.0118029801 -0.0765142098 -0.0171740483 -0.1149968813
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## [174,]   0.2585047701  0.0959779626  0.1719091288  0.1845260260 -0.1470740777
## [175,]  -0.0438043795 -0.0989588327 -0.0217992474  0.1289501628 -0.0901093429
## [176,]  -0.0618199193  0.0362102002 -0.0306897509 -0.0382738020 -0.0473175697
## [177,]   0.0011811839 -0.0386883404  0.0216028347 -0.0853711253 -0.0224078037
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## [185,]  -0.0108324892 -0.0265351534 -0.2959724873 -0.0871374365 -0.0016750966
## [186,]  -0.0150502738  0.0418566416 -0.0587873556 -0.0056196019 -0.2045169709
## [187,]  -0.0590987833 -0.0011436299 -0.0358506921 -0.0175729911 -0.0084165363
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## [189,]  -0.0075366333  0.0305934443 -0.0494289529  0.0095581527 -0.0501080280
## [190,]   0.0182850722 -0.0396978243  0.0300938828 -0.0114521880 -0.0219962100
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## [197,]  -0.0519317420  0.0286191074 -0.0257049298 -0.0113791348  0.0780447194
## [198,]  -0.0423587831  0.0368862333 -0.0162924594 -0.0169198973 -0.0299954764
## [199,]   0.0466347003 -0.0590255050 -0.0104720096  0.0187228449 -0.0199915164
## [200,]  -0.0668247970  0.0340334956 -0.0213061967 -0.0872979727 -0.0432184225
## [201,]   0.0270460125  0.0149520020 -0.0022025730 -0.0037431105 -0.0056626198
## [202,]  -0.0032044376  0.0189726545 -0.0226542616 -0.0154206959 -0.0228928144
## [203,]   0.0626498941 -0.0241281372  0.0099747029 -0.0123789770  0.0052851817
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## [204,]   0.0516547757 -0.0592400747 -0.0733532441 -0.0213293414 -0.0021118898
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## [206,]   0.0611036976 -0.0033335186  0.0270128641 -0.0123661071  0.0558890135
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## [208,]   0.0470232997  0.0144551863  0.0147480601 -0.0049145835  0.0409600180
## [209,]   0.0752902465  0.1377587888 -0.0335639628  0.0252605665  0.0188021307
## [210,]   0.0065583079 -0.0239544178  0.1518433992 -0.0007552744  0.1169344608
## [211,]   0.0475384784 -0.0075856013 -0.0538560645  0.0459440032 -0.1185742407
## [212,]   0.0650111822  0.1311393691  0.0067176185 -0.0165992776  0.0071924847
## [213,]   0.0776107276  0.0270245010  0.0074833361 -0.0167698240  0.1043794514
## [214,]   0.0375258420  0.1149781311 -0.0079450774  0.0059408752 -0.0158117563
## [215,]  -0.0150502738  0.0418566416 -0.0587873556 -0.0056196019 -0.2045169709
##                 [,16]         [,17]         [,18]         [,19]         [,20]
##    [1,] -0.0181277206  0.0158577849  0.0117550031  0.0738018431 -5.847825e-02
##    [2,]  0.0346726512  0.0294578123 -0.0671424707 -0.0358631921  3.283282e-02
##    [3,] -0.0010209406  0.0132957633 -0.0092681975 -0.0103582061  2.646524e-02
##    [4,]  0.0154031116 -0.1728013451  0.1410743789 -0.0919637400 -4.096562e-02
##    [5,]  0.0764235646 -0.1431423667  0.0429158642 -0.0520442595  2.021385e-01
##    [6,]  0.0435332470  0.0914295587 -0.0752627503 -0.1190309878  1.099663e-02
##    [7,] -0.0762331223 -0.0871426528  0.0908915503 -0.0776315539  1.845258e-02
##    [8,]  0.0241710265  0.0002471772  0.0938962368  0.0093824817  1.440413e-01
##    [9,] -0.0715163570  0.0033284827  0.0563522584 -0.0142532404  5.313735e-02
##   [10,] -0.0192964548  0.0326648063  0.1287846230  0.0373210017 -3.885060e-02
##   [11,] -0.0456752942  0.0166225480 -0.0838525188 -0.1296076148  1.113619e-01
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##   [13,]  0.0149776797  0.0770662284  0.0338317633  0.0257636598 -9.304409e-02
##   [14,]  0.0350548225 -0.0107952791  0.0373702125 -0.0213244904  4.251351e-02
##   [15,]  0.0850558357 -0.0376312920  0.0245022486  0.0551497651 -8.330641e-02
##   [16,]  0.0002313377 -0.0147524667  0.0084573187 -0.0345601263 -3.255555e-02
##   [17,]  0.0626283366 -0.0589110293 -0.0481361383  0.0484335656  2.948699e-02
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##   [19,]  0.0263203341 -0.0032162568 -0.0035241974 -0.0263976315  2.096816e-02
##   [20,]  0.0016206707 -0.0137933931  0.0936621675 -0.0526268082  1.204128e-01
##   [21,] -0.1063917624 -0.0032900112 -0.0194458990 -0.0531606425  2.042404e-02
##   [22,]  0.0193948362 -0.0495090721  0.0947498985  0.0218081055 -8.454955e-02
##   [23,]  0.0128068868  0.0698369596  0.0291330564  0.0924615450 -2.569616e-03
##   [24,] -0.0396057409  0.0341606894  0.0957531653 -0.0235844959  6.053506e-03
##   [25,] -0.0096911621 -0.0512011270 -0.0435573412 -0.0479792035  1.793681e-02
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##  [42,]   0.1534664996 -0.0602212281  0.0067261496 -0.0747595054 -4.043653e-02
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##  [55,]  -0.0531341030 -0.0204806764 -0.0880102032 -0.0408453567  3.718022e-02
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##  [58,]  -0.0421638804 -0.0823642265  0.0247662916  0.0220163584  2.759099e-02
##  [59,]  -0.0511164810 -0.0009852093 -0.0465387470  0.0063727100 -4.565890e-03
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##  [67,]  -0.0587007585 -0.0255018542 -0.0543385116 -0.0016893866 -2.494237e-02
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##  [75,]   0.1514435810 -0.1360085831  0.0072904019 -0.0880101029 -2.999298e-02
##  [76,]  -0.0115805524  0.0648890048  0.0649437322 -0.0082939984 -1.366260e-02
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##  [99,] -0.0054456356  0.2675454220 -0.1984743541  0.0825806712 -1.444792e-01
## [100,]  0.0177518484 -0.0435812636 -0.0280455490  0.0003845172  2.373091e-02
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## [107,] -0.0963968081  0.0346394424 -0.0305308017 -0.1118022727  1.605572e-02
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## [124,] -0.0047641476  0.0167928362  0.0672527668  0.0716308851  1.508471e-02
## [125,]  0.0099458585 -0.0192921119 -0.1944965305 -0.0056844764  4.765501e-02
## [126,] -0.0009641776  0.0693234710 -0.0759856552  0.0047524044  1.210014e-01
## [127,] -0.0101093022  0.1282192087 -0.0875032665  0.0930329656  2.165602e-02
## [128,] -0.0411284767  0.0135132526 -0.0652858606  0.0119716642 -5.530893e-03
## [129,] -0.0651833102  0.0437732616  0.0659802202 -0.0852378792 -5.104333e-02
## [130,] -0.0126904588  0.0399377510 -0.0537388358 -0.0376773048 -6.625212e-02
## [131,] -0.0347248471  0.1121460997  0.0603431735  0.1072685437 -9.139887e-02
## [132,] -0.0635005565  0.1236695945  0.2197728944 -0.0068108860  3.524939e-02
## [133,] -0.1188219433 -0.0031480350 -0.1043725640 -0.1363043919 -9.767256e-02
## [134,]  0.0210326335 -0.0014148813  0.0714022839 -0.0096364180 -6.050097e-02
## [135,] -0.0421638804 -0.0823642265  0.0247662916  0.0220163584  2.759099e-02
## [136,]  0.1514435810 -0.1360085831  0.0072904019 -0.0880101029 -2.999298e-02
## [137,] -0.0377965345  0.0170072512 -0.0465798186 -0.0039432148 -4.466776e-02
## [138,] -0.0038724022 -0.0668463483 -0.0296981673  0.0732621566 -1.201269e-01
## [139,] -0.0128004087  0.0560779095 -0.1726752073  0.0299988154 -3.979010e-02
## [140,]  0.0523751491  0.0841442792  0.0258553538  0.0083869668  1.018196e-01
## [141,]  0.0476896438 -0.0113475911 -0.2015590854 -0.0269667849 -1.509971e-01
## [142,]  0.0148402256 -0.1145000731  0.0110771547  0.2504284624 -1.188837e-01
## [143,] -0.1100954451  0.1288557883  0.0154410808  0.0318512741 -2.944566e-02
## [144,]  0.0278416413  0.0574548018  0.1009146393  0.0523323979  1.582742e-01
## [145,]  0.0345223668  0.0900826055  0.0314730138  0.1207085493  2.127686e-02
## [146,]  0.0159853483 -0.0710146899 -0.0939951007 -0.1467484063  3.353040e-02
## [147,] -0.0356320910  0.0309468254 -0.0476032581  0.0612955613  3.292530e-02
## [148,]  0.0171790113 -0.0293940839  0.0258357310  0.0027618892 -6.691778e-02
## [149,]  0.0690169085 -0.0319697658 -0.0244372287 -0.0282396350  1.571437e-02
```

```
## [150,]  -0.0261396571   0.0280886901  -0.0723296259   0.0129599241   5.450559e-02
## [151,]   0.0491319711   0.0197358584   0.0259357032   0.0660848903   4.914797e-02
## [152,]   0.0318318049  -0.0015384843   0.0007775628   0.0434165900   6.060610e-02
## [153,]  -0.0231322785   0.0192954556  -0.0457668626  -0.0885107636  -3.323393e-03
## [154,]  -0.0264187809   0.0542068195   0.0158336276   0.0237647119   2.755163e-02
## [155,]  -0.0081951834  -0.0240282277   0.0337993574   0.0250647294   5.306518e-02
## [156,]   0.0723301051  -0.0207586419   0.0011147169  -0.0405445399  -1.278032e-01
## [157,]   0.0074873409   0.0448881266  -0.0792980497   0.0219311888  -7.021851e-02
## [158,]   0.0274015708   0.0926187273  -0.0120210716   0.1734149908   8.265441e-02
## [159,]  -0.1279086315  -0.0257039716  -0.1335305963  -0.0678130989   6.207483e-02
## [160,]   0.0119108927   0.0142031339   0.0634478280  -0.0721956580   6.855520e-02
## [161,]   0.0994893364   0.0206309702   0.0119148739   0.0699228481   8.079741e-02
## [162,]   0.0385109347   0.0681835853  -0.0237341831   0.0515651244   9.010672e-04
## [163,]  -0.0323578929   0.1200075719  -0.0017832966   0.0008538576   7.321671e-02
## [164,]   0.0146564122  -0.0365647559  -0.0244097424   0.0362066703   3.822777e-02
## [165,]  -0.0224340844  -0.0091193630   0.0191826872   0.0370269472  -5.446226e-03
## [166,]   0.2863439393  -0.1787466002   0.0959408144  -0.0621064310  -1.889397e-01
## [167,]   0.0732098245   0.0340201027   0.0686956345   0.0159293967  -3.433709e-02
## [168,]  -0.0125762078   0.0649295640   0.0233262048  -0.0477975321  -1.046819e-02
## [169,]   0.0458718801   0.0259586921   0.0530528145  -0.0662853743  -6.682695e-03
## [170,]   0.0243200373  -0.0094773201  -0.0647725838  -0.0327788424   5.480798e-02
## [171,]  -0.0230713944  -0.0921447189  -0.1033329519  -0.1244428725   6.553538e-02
## [172,]  -0.0040990610  -0.0006328674   0.0542197685  -0.0311835533   8.900444e-02
## [173,]   0.0738146542   0.0981658902   0.0862733578   0.0346523490   4.833406e-02
## [174,]   0.0395015698  -0.1283284700  -0.0389659577   0.1521795642  -5.236955e-02
## [175,]  -0.0200687212  -0.0690394659   0.0277190016   0.0427702985   6.587319e-02
## [176,]   0.0345223668   0.0900826055   0.0314730138   0.1207085493   2.127686e-02
## [177,]  -0.0348886172   0.0793775481   0.0504800459   0.0182608812  -1.681836e-01
## [178,]  -0.0444517338  -0.1176408466   0.0157344458  -0.0172243121   9.161674e-02
## [179,]  -0.0665451731  -0.0241721614  -0.0122737967   0.0242295355  -1.364361e-02
## [180,]   0.0541044083   0.0057929464   0.0761608556   0.0589534993  -7.425864e-02
## [181,]   0.0159409742  -0.0147948118  -0.0691608534   0.0476924808   6.998497e-02
## [182,]  -0.0547593135   0.0322633861  -0.0767653875   0.0944594316  -3.489565e-02
## [183,]   0.0448982073  -0.0071318874   0.0085937111  -0.0853834908   8.085006e-02
## [184,]  -0.1442442604  -0.1905732944  -0.0693401215   0.1274661079   1.631939e-02
## [185,]  -0.5559228797  -0.3710637931   0.1064449534   0.2333510861  -3.506455e-02
## [186,]   0.0017607232   0.0155374552  -0.0218157668   0.0348752381   7.464234e-02
## [187,]   0.0433588476  -0.0590217307  -0.0976196915   0.0029340835   2.210163e-02
## [188,]   0.0149776797   0.0770662284   0.0338317633   0.0257636598  -9.304409e-02
## [189,]   0.0400646357   0.1038213840   0.0075717779   0.0774930113  -1.692407e-02
## [190,]   0.0626283366  -0.0589110293  -0.0481361383   0.0484335656   2.948699e-02
## [191,]  -0.0075759644   0.0126363739   0.1017113330  -0.0362079644  -2.581481e-02
## [192,]  -0.0511164810  -0.0009852093  -0.0465387470   0.0063727100  -4.565890e-03
## [193,]   0.0343270387   0.0047191801  -0.0005474200  -0.0105306566   7.798458e-02
## [194,]   0.0239509606  -0.0278213561  -0.0696672747  -0.0066302694   3.919109e-02
## [195,]  -0.0249139299   0.0549871297   0.1507878926  -0.0624283225   1.313611e-02
## [196,]  -0.0067834894   0.0274239921   0.0496723920   0.0670221569   7.452768e-02
## [197,]  -0.0122880171   0.0658003184  -0.0980242087  -0.0115369043  -7.547040e-02
## [198,]   0.0340803588   0.0535464213  -0.0640159237  -0.0438304939  -5.819462e-02
## [199,]   0.0093175954  -0.0449781315  -0.0658161095  -0.0047619270  -5.567226e-02
## [200,]   0.0159674567  -0.0217909784   0.0491353640  -0.0745233351  -4.299551e-02
## [201,]  -0.0232648842   0.0288687155   0.0468161163  -0.0200104963   2.052241e-02
## [202,]   0.0490621150  -0.0259098233  -0.0571929039   0.0079519413  -2.585324e-02
## [203,]   0.0275798919  -0.0638758209   0.0816041142   0.0084363788  -1.985193e-02
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## [204,]  -0.0128004087   0.0560779095  -0.1726752073   0.0299988154  -3.979010e-02
## [205,]  -0.1097324871   0.0286230962   0.0289980414  -0.0361302405  -3.232729e-02
## [206,]  -0.0640295938   0.0320161771  -0.0156093668  -0.0920820369  -9.329735e-02
## [207,]   0.0068580902   0.1020193530   0.0073009144  -0.0103655099   4.618673e-02
## [208,]   0.0728284072   0.0052747895   0.0416052829  -0.0315807844  -3.762874e-02
## [209,]   0.0655836837  -0.0344294880  -0.0090830012  -0.0360848545  -3.019360e-03
## [210,]  -0.1179478791   0.0321725036  -0.0061270977   0.0316179125   1.325811e-03
## [211,]   0.0206544588  -0.0750528969  -0.0265353146  -0.0548527455   2.885111e-02
## [212,]   0.0430873378   0.0233547601   0.0462904248  -0.0003727947  -1.481808e-01
## [213,]  -0.0484448780  -0.0214857485  -0.0051594133  -0.1028933017   3.473472e-02
## [214,]   0.0356140770   0.0303807782   0.0465808298   0.1397839311   5.063012e-02
## [215,]   0.0017607232   0.0155374552  -0.0218157668   0.0348752381   7.464234e-02
##                  [,21]          [,22]          [,23]          [,24]          [,25]
##   [1,]  -0.0114964091   0.0496251075  -1.324245e-02  -1.026124e-01  -0.0376502460
##   [2,]   0.0010946008   0.0442644116   4.482054e-02   4.486112e-02  -0.0132595165
##   [3,]  -0.0109601471  -0.0582534064   7.600977e-03  -6.218811e-02  -0.0373924457
##   [4,]   0.0028438081   0.0478644692  -5.075301e-02  -2.871210e-02   0.0619794313
##   [5,]   0.0130477768   0.0270583258  -1.351011e-01  -2.341815e-02   0.0656707296
##   [6,]  -0.0346824158   0.0422658412  -2.665458e-01  -3.526133e-02   0.1279095420
##   [7,]   0.0562507638  -0.0084482857   1.611784e-01  -1.334208e-01   0.0094341782
##   [8,]   0.0319301541   0.0824369481   1.226595e-01  -1.216013e-01   0.0113267543
##   [9,]  -0.1124145548   0.1953857106   1.679042e-01  -1.520527e-01   0.0029481030
##  [10,]  -0.0159539418   0.1979318992  -1.005872e-01   5.887754e-02  -0.0349300124
##  [11,]  -0.0226520286  -0.0928820940  -1.001110e-01   2.060763e-01   0.1257095286
##  [12,]   0.0252958255  -0.0533334758   7.007700e-02  -5.459674e-02  -0.0663767861
##  [13,]  -0.0848822604  -0.0298642904   9.166159e-03  -3.600422e-02  -0.0305581577
##  [14,]  -0.0601214998  -0.0048570241   2.252247e-02  -2.204289e-02  -0.0252283008
##  [15,]  -0.0394234046   0.0672445762   2.012154e-02  -4.001198e-02  -0.0664832243
##  [16,]   0.0252292917  -0.0024274493   2.500209e-02   5.286614e-03  -0.0345786493
##  [17,]   0.0154306914   0.0289885461  -1.365792e-02   1.683036e-02  -0.0312804758
##  [18,]  -0.0636996625  -0.1139029120  -5.592040e-02   1.546890e-02  -0.1552201238
##  [19,]  -0.0563323426  -0.0409615914   5.470495e-02   2.539253e-02   0.0018207213
##  [20,]  -0.0245712398  -0.0285723383   3.876661e-02  -3.011868e-02   0.0133866938
##  [21,]  -0.0006600268   0.0101766297   1.954917e-03   3.021376e-02   0.0861036647
##  [22,]   0.0458038489  -0.0889328163  -1.207022e-02   6.097530e-02   0.0487988589
##  [23,]   0.0028583106  -0.0147827963  -1.015388e-01  -5.023121e-02  -0.0341279885
##  [24,]  -0.0167939762  -0.0969329797  -1.487304e-01  -4.669733e-02  -0.1040535571
##  [25,]   0.0020897366  -0.0423653830   3.838144e-02   4.977272e-02   0.0288437506
##  [26,]  -0.0816232759  -0.0028801749  -3.228935e-02  -4.270940e-02   0.0389170823
##  [27,]  -0.0413123935   0.0825805831  -2.199790e-02  -1.275404e-02  -0.0434902714
##  [28,]  -0.0184296468   0.0777898003  -2.958422e-02   3.794225e-03  -0.0246181399
##  [29,]  -0.0184296468   0.0777898003  -2.958422e-02   3.794225e-03  -0.0246181399
##  [30,]   0.0440827960  -0.1184260438   1.833542e-02  -8.927446e-02  -0.0345728166
##  [31,]   0.0149296526  -0.1039517693   2.069637e-02  -3.898250e-03  -0.0305792590
##  [32,]  -0.0014232639   0.0407714035  -8.823222e-02  -4.499369e-02   0.1030611909
##  [33,]   0.1005343325  -0.0637073109   9.085261e-02   1.312638e-02  -0.0417247661
##  [34,]   0.0493529153  -0.0580862586  -4.777127e-02   3.894744e-02   0.0002209046
##  [35,]   0.0096750848   0.0371437884   3.100642e-02   4.384228e-02  -0.0793855178
##  [36,]  -0.0635979546  -0.0098641622  -4.199531e-02  -4.273220e-02   0.0272901800
##  [37,]   0.0752422919  -0.0546695550  -4.343822e-02  -5.327850e-03  -0.0155824742
##  [38,]   0.2244641548  -0.0500999204  -1.387885e-02  -1.699717e-02  -0.0150815094
##  [39,]  -0.1158562308  -0.1938357786   2.361801e-01   3.788471e-02  -0.0071946363
##  [40,]  -0.0511492406   0.1447653118   6.081050e-02   4.654306e-02  -0.0379818138
##  [41,]  -0.0187921834  -0.0240920947   6.306757e-02  -1.104490e-02  -0.0647968001
```

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## [42,]  -0.0278518365   0.0610568352   4.699291e-02   1.259330e-01  -0.0897752553
## [43,]  -0.0385956221   0.1402092674   1.645731e-02  -1.489481e-01   0.1470712578
## [44,]   0.0944014760  -0.2780953195  -1.744256e-02   5.585007e-04   0.0578621209
## [45,]  -0.1105444186   0.0061521684   9.846921e-02  -3.780385e-02  -0.1216757750
## [46,]  -0.0299457349  -0.0307158762  -7.173224e-02  -8.794644e-02  -0.0056114265
## [47,]   0.0024045830  -0.0044149612  -2.639739e-02   2.542361e-02   0.1018098130
## [48,]   0.0252958255  -0.0533334758   7.007700e-02  -5.459674e-02  -0.0663767861
## [49,]   0.0230678487  -0.0449996652   4.981092e-03   8.288369e-03   0.0252881212
## [50,]   0.0971441258  -0.0038328160  -4.001571e-02  -4.747792e-02  -0.1240871825
## [51,]  -0.0394234046   0.0672445762   2.012154e-02  -4.001198e-02  -0.0664832243
## [52,]  -0.0260539422   0.0003905923   2.797557e-02   7.145844e-03   0.0295019413
## [53,]  -0.0522563117  -0.0683685707  -6.769072e-02   3.167539e-03   0.0473189582
## [54,]   0.0252292917  -0.0024274493   2.500209e-02   5.286614e-03  -0.0345786493
## [55,]  -0.0319611164  -0.0275352441  -2.130139e-02  -1.033705e-01  -0.0877662123
## [56,]   0.0670348938   0.0079843678   6.023971e-03   2.086570e-02   0.0626804599
## [57,]  -0.0333345573  -0.0291890102  -1.419627e-02   8.499311e-03   0.0230363836
## [58,]   0.0703055177   0.0786977583   2.169473e-02  -5.741758e-02  -0.0619931214
## [59,]   0.0305927021   0.0082201153   7.431202e-02  -1.378340e-02  -0.0327431581
## [60,]  -0.0070337482   0.0687261692  -2.244866e-02   4.391517e-02  -0.0235205352
## [61,]  -0.0043008457   0.0119391380   7.107587e-02   9.709415e-02   0.0722799818
## [62,]  -0.0043008457   0.0119391380   7.107587e-02   9.709415e-02   0.0722799818
## [63,]  -0.0091306403  -0.1294732070  -5.323585e-02  -5.176376e-02  -0.0215936168
## [64,]  -0.0319605690   0.0437423524  -5.266373e-03   9.123157e-02   0.0588921954
## [65,]  -0.0391243841  -0.0279861763  -1.793649e-02  -3.233262e-02  -0.0202020470
## [66,]  -0.0276973605  -0.0155776562  -8.263000e-03   6.404442e-03  -0.1188815408
## [67,]   0.0002681630  -0.0076227793   9.407668e-02   2.822130e-02  -0.0349731929
## [68,]   0.1361649864  -0.0374882076   5.288583e-02  -7.397541e-02  -0.0699768397
## [69,]   0.0358576698   0.0336065969  -9.321631e-03  -3.023091e-03  -0.1155303531
## [70,]   0.0092869583   0.0842677537   2.037170e-02  -8.707592e-03   0.0458730416
## [71,]  -0.0133330511   0.0315686834   6.839983e-02   2.455381e-02  -0.0028950501
## [72,]  -0.0829760701  -0.0542076570  -6.166592e-04  -9.305957e-02  -0.0055831162
## [73,]   0.0577386898  -0.0607084570  -6.746857e-02  -3.949991e-02  -0.0372740045
## [74,]  -0.0891273715  -0.0369415042  -2.629231e-02   3.527275e-02  -0.0147814656
## [75,]   0.0060764839   0.0165498691   6.269050e-02   1.895863e-02   0.0772095722
## [76,]  -0.0113537834   0.0504177855  -6.517171e-02  -9.166807e-03  -0.0409507074
## [77,]   0.0548008842  -0.0166928098   5.478297e-02   1.745780e-02  -0.0283419261
## [78,]  -0.0053972487  -0.0244305677   2.086707e-02   6.650168e-02   0.0455652676
## [79,]   0.0439771706   0.0359103098   1.063884e-02  -7.059341e-02  -0.0237103398
## [80,]   0.0070385532  -0.0514653082   3.201198e-02   3.406701e-03  -0.0264879587
## [81,]   0.0308267178   0.0103972349   9.208362e-03  -2.212537e-02  -0.0455947209
## [82,]  -0.0329752768  -0.0325571995  -2.182936e-02  -3.839586e-03   0.0296662441
## [83,]   0.1127096009   0.0183003259   3.756990e-03  -4.307686e-02  -0.1348358232
## [84,]  -0.0119637313   0.0318245352  -8.213407e-02  -2.117131e-02  -0.0441950586
## [85,]   0.0057271428  -0.0488143652  -1.456573e-02  -2.409791e-02   0.0434500192
## [86,]   0.0414734267   0.0089045815   9.130327e-02  -1.196997e-02   0.0452495762
## [87,]  -0.0974607076  -0.0398808922   8.733129e-02   1.117999e-01   0.0563096785
## [88,]  -0.0017661407  -0.0010757459  -2.454273e-02   3.272907e-02   0.0206819529
## [89,]  -0.0627913561   0.0277292298   4.471073e-02  -3.312561e-02  -0.0441139154
## [90,]  -0.0029757325  -0.0016489589   8.113114e-03  -3.925537e-02  -0.0183898040
## [91,]  -0.0094867316  -0.0053877010   1.732134e-02   3.443018e-02   0.0220022795
## [92,]   0.2007371616   0.0440911471  -6.708821e-04   5.585495e-03   0.0299364589
## [93,]   0.0131731133  -0.0815245872   9.937714e-02   7.754767e-02   0.0834452204
## [94,]  -0.0130498175  -0.0628955502  -1.931031e-02   3.786900e-02  -0.0301925973
## [95,]  -0.0049897246  -0.0036901778  -6.752339e-03   1.185709e-01  -0.0026266343
```

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## [96,]  -0.0168383554  -0.0302587331   1.063959e-02   1.324732e-01   0.0148199203
## [97,]   0.0249007698  -0.0598193185  -4.883784e-02   1.071940e-02  -0.0262849590
## [98,]  -0.1012492120  -0.0706763825  -1.699179e-02  -1.026773e-02  -0.0371503471
## [99,]   0.2299965736   0.0328971028   1.504795e-01   2.765650e-01  -0.1798662208
## [100,] -0.0193939492  -0.0273343202  -3.340389e-02   4.365199e-02  -0.0218568782
## [101,] -0.0581319693  -0.0832368455  -1.255013e-02  -8.497354e-02  -0.0318787540
## [102,] -0.0053960114   0.0080391803  -3.652197e-02   1.369954e-02   0.0350875184
## [103,]  0.0047857612   0.0032755875  -2.959319e-02   2.329105e-02   0.0457374275
## [104,] -0.0064232540   0.0827209549   6.243902e-02  -7.187039e-03   0.0171335901
## [105,]  0.0031230663   0.0071011339  -2.162561e-02   1.850303e-03   0.0401718797
## [106,] -0.0097627324   0.0032366411  -6.584085e-02  -3.056046e-02   0.0501025640
## [107,] -0.0934596973  -0.0395692843   2.625129e-02   2.965068e-02  -0.0172013936
## [108,]  0.0886325365  -0.0357913935   5.327575e-02   8.175284e-02   0.0070108115
## [109,]  0.0014368587  -0.0502997934  -3.397835e-02   1.175637e-01  -0.0168088003
## [110,] -0.0635979546  -0.0098641622  -4.199531e-02  -4.273220e-02   0.0272901800
## [111,] -0.0731851578   0.0145135120   8.345728e-02   2.478539e-02   0.1095290114
## [112,]  0.0108852457   0.0125085266  -5.403677e-02  -5.338023e-02   0.0666556256
## [113,]  0.0291554557   0.0414450252  -2.127749e-02   7.250887e-03   0.0168515630
## [114,]  0.0231401997   0.0807118149   8.084663e-03  -2.019709e-02  -0.1100349028
## [115,]  0.0119986937  -0.0539296919  -1.181309e-01  -2.105598e-02  -0.0310166547
## [116,]  0.0752422919  -0.0546695550  -4.343822e-02  -5.327850e-03  -0.0155824742
## [117,]  0.2244641548  -0.0500999204  -1.387885e-02  -1.699717e-02  -0.0150815094
## [118,] -0.0488760268  -0.0241723313   2.629740e-03   5.054066e-02  -0.0346869734
## [119,] -0.1307489110   0.0007508701  -1.963400e-02  -2.317583e-02   0.1374951157
## [120,]  0.0034496987   0.0365429343  -5.164451e-02   5.971536e-02   0.1181282420
## [121,]  0.0556258066   0.0626716735   2.690139e-02   9.276670e-02   0.0110947745
## [122,] -0.0056303957  -0.0308996230  -2.144698e-02  -8.652506e-02   0.1425802266
## [123,] -0.0511492406   0.1447653118   6.081050e-02   4.654306e-02  -0.0379818138
## [124,]  0.0363395489  -0.0608980935  -1.270116e-01   1.442530e-03  -0.0530234951
## [125,]  0.0344612842   0.0057372205  -1.302025e-01  -1.983759e-01  -0.1947801290
## [126,] -0.0057199302  -0.0102968625  -9.740038e-03  -1.509845e-02  -0.0298741954
## [127,] -0.0761097305  -0.0680051226  -4.086476e-02  -5.884317e-02  -0.0428620311
## [128,]  0.0670649309   0.0248053085  -2.468871e-02   6.248756e-03  -0.0620223904
## [129,]  0.0194305787  -0.0531155371  -8.151276e-03  -6.217647e-02  -0.1438880367
## [130,] -0.0466968188  -0.0279871932  -7.680430e-02  -1.403069e-02  -0.0838409123
## [131,] -0.1107120340   0.0649450754   9.866317e-02  -6.177085e-02  -0.0557477445
## [132,]  0.0148645561   0.2050104083   1.314323e-01  -2.325188e-01   0.0808965958
## [133,]  0.0140491290   0.0614160472   7.276477e-02   6.397201e-02  -0.0504166579
## [134,] -0.0066397538  -0.0462149546   2.893571e-02  -1.263035e-03  -0.0365489761
## [135,]  0.0703055177   0.0786977583   2.169473e-02  -5.741758e-02  -0.0619931214
## [136,]  0.0060764839   0.0165498691   6.269050e-02   1.895863e-02   0.0772095722
## [137,] -0.0287288836  -0.0040728061  -3.763948e-02  -1.250712e-02   0.0131811747
## [138,] -0.0816232759  -0.0028801749  -3.228935e-02  -4.270940e-02   0.0389170823
## [139,] -0.0889900901   0.1601990330  -6.049746e-02   9.512454e-06   0.1083977644
## [140,] -0.0422886908   0.0372090708  -2.112441e-02   4.713015e-02   0.0354737015
## [141,]  0.0123593186   0.0371804199   6.289588e-02  -2.028980e-01   0.0952941762
## [142,] -0.1158562308  -0.1938357786   2.361801e-01   3.788471e-02  -0.0071946363
## [143,]  0.0125943770   0.0072511063   1.168148e-01   6.316531e-03   0.0079255135
## [144,]  0.0006722888  -0.0434032668  -2.715359e-02   2.452765e-02  -0.0470782030
## [145,]  0.0451307253   0.0015269898   2.084427e-02   4.133867e-03   0.0386008985
## [146,] -0.1555357083  -0.0777477120   5.358778e-02   7.603467e-02   0.0323629745
## [147,] -0.0076745765   0.0151877352  -5.699440e-02  -7.088373e-03  -0.0703440168
## [148,]  0.0452146941   0.0437719014   3.026576e-03   5.578759e-02  -0.0058135026
## [149,] -0.0609554185  -0.0218817819  -2.000614e-02  -3.060022e-02   0.0545477456
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## [150,]  -0.0319605690   0.0437423524  -5.266373e-03   9.123157e-02   0.0588921954
## [151,]   0.0069062123  -0.0011769293  -1.791351e-02  -2.417328e-02   0.0658712660
## [152,]   0.0099159820  -0.0304819464   5.470046e-03   6.742015e-02   0.0687590832
## [153,]   0.0714601929  -0.0067715035  -1.101292e-03   2.449651e-02  -0.0823059016
## [154,]   0.0396752001  -0.0317017215  -6.788015e-02  -3.179725e-02  -0.0543208086
## [155,]   0.1955297130  -0.0027177915   4.190632e-02  -1.182495e-01   0.1060561938
## [156,]   0.3368108858   0.1361163655   4.610155e-02  -5.782470e-02   0.2773038223
## [157,]   0.0489291585   0.0244052315  -6.981231e-03  -7.925890e-02   0.0877636204
## [158,]   0.0479509237   0.0314155766  -6.465107e-02   3.590650e-02   0.1147369140
## [159,]   0.0549996223  -0.0242326139   7.582517e-03  -9.339436e-02   0.0097538256
## [160,]  -0.1068625007  -0.0164459870  -3.880986e-03  -1.440920e-02  -0.0148831752
## [161,]   0.0408935876   0.0197958937  -5.572574e-02   7.236350e-02  -0.0342124785
## [162,]   0.0491005418   0.0222521799  -7.967974e-02  -1.757815e-02  -0.0749771001
## [163,]  -0.0866743488  -0.0147076215   1.998063e-03   2.563635e-02  -0.0448008605
## [164,]  -0.0605423132   0.0141530088  -5.625846e-04   1.925112e-02  -0.0181503177
## [165,]   0.0844110364   0.0235386981  -6.170603e-02   6.178074e-03  -0.1006601407
## [166,]  -0.0421011282   0.1353931142  -2.821643e-01   4.202405e-02  -0.1775877338
## [167,]   0.0126867940  -0.0393066809  -3.288690e-02   8.144711e-02   0.0822130164
## [168,]  -0.1214915055  -0.0705288881  -1.046473e-02  -4.406894e-02   0.0044513416
## [169,]   0.0040136234   0.0507674445  -9.412149e-02  -2.357536e-02   0.0070209008
## [170,]  -0.0052005612  -0.0319342225  -3.786907e-02   5.560418e-02  -0.0362753171
## [171,]   0.1461438126  -0.0751980244   1.169727e-01  -2.416120e-02   0.0029445411
## [172,]   0.0372452439   0.0280759053   9.569260e-02   2.523781e-02  -0.1064745885
## [173,]   0.0226604417   0.0718694490   6.462057e-02   1.104329e-01  -0.1045917033
## [174,]  -0.1279637729   0.1235038252   3.558972e-03  -1.275530e-01   0.0172676551
## [175,]  -0.0537480598   0.1283082618   9.895432e-02  -7.125579e-02  -0.0883016291
## [176,]   0.0451307253   0.0015269898   2.084427e-02   4.133867e-03   0.0386008985
## [177,]   0.0525898150  -0.0131573146  -5.644021e-02  -5.509577e-02   0.0194757967
## [178,]   0.0002329219   0.0387718639   6.335599e-02  -3.213480e-02   0.0253690111
## [179,]  -0.0422898324   0.0756274028  -2.192400e-02  -3.957498e-02  -0.0095924558
## [180,]   0.0414734267   0.0089045815   9.130327e-02  -1.196997e-02   0.0452495762
## [181,]  -0.0627913561   0.0277292298   4.471073e-02  -3.312561e-02  -0.0441139154
## [182,]  -0.0344405561   0.0628664459  -1.274028e-01   1.084305e-02   0.0354611044
## [183,]   0.0040475261  -0.0248076786   3.997962e-02   9.180637e-02   0.0630961795
## [184,]  -0.0055923243  -0.3135516238  -1.433546e-01  -2.346082e-01   0.1337171636
## [185,]  -0.0010698016   0.1297021154  -1.611802e-01   3.343612e-01   0.0135929286
## [186,]  -0.0332612618  -0.0070049473   1.023175e-01  -7.624426e-03   0.0197380684
## [187,]  -0.1087921391  -0.0495512578   3.871844e-02  -2.695098e-02   0.0079023489
## [188,]  -0.0848822604  -0.0298642904   9.166159e-03  -3.600422e-02  -0.0305581577
## [189,]  -0.0665066738   0.0782743829  -2.247472e-03   1.406499e-02   0.0616273448
## [190,]   0.0154306914   0.0289885461  -1.365792e-02   1.683036e-02  -0.0312804758
## [191,]   0.0087368539  -0.0892590260  -2.001383e-02  -4.924083e-02   0.1185321806
## [192,]   0.0305927021   0.0082201153   7.431202e-02  -1.378340e-02  -0.0327431581
## [193,]   0.0020485515  -0.0897431259   1.991789e-03   2.658291e-02  -0.0126030017
## [194,]   0.0806717576  -0.0340153537  -2.250077e-05   1.565760e-02  -0.0951824504
## [195,]  -0.0021771698   0.0105261475  -1.038827e-02  -1.783198e-02   0.0273774163
## [196,]  -0.0842859479  -0.0740981481   1.015088e-02   5.786176e-03   0.0473664576
## [197,]   0.0040400097  -0.0819632410   3.111571e-02   5.751420e-02   0.1209453003
## [198,]  -0.0874661769   0.0309193257  -6.892410e-03   1.109946e-01   0.0351987883
## [199,]  -0.0066547274   0.0071013291  -6.674446e-02  -5.270761e-02  -0.0931254907
## [200,]   0.0463214531  -0.0229866663  -5.286470e-02  -4.847701e-03  -0.1084017662
## [201,]  -0.0199818555  -0.0235770420   3.225961e-03   5.088365e-02  -0.0359657716
## [202,]   0.1049799532   0.0103060489   2.315602e-02   1.051770e-02   0.0291025794
## [203,]   0.1040812368  -0.0014079130   1.175723e-02  -3.667207e-03   0.0764965578
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## [204,]  -0.0889900901   0.1601990330  -6.049746e-02   9.512454e-06   0.1083977644
## [205,]   0.0241017117   0.0194479408  -1.022076e-02   8.233479e-03  -0.0569121170
## [206,]  -0.0856038373  -0.0780018175   1.784200e-02   8.954507e-02   0.0360214305
## [207,]  -0.1537099409  -0.0351548914   3.273206e-03   5.876572e-02  -0.0250362979
## [208,]   0.0796335586   0.0020029871  -5.435518e-02   7.972220e-02   0.0664495949
## [209,]  -0.0825043049   0.0251510238  -2.689491e-02   4.329492e-02   0.0325598190
## [210,]  -0.0063148147   0.0944990328   4.082434e-03   1.557974e-02  -0.1134049348
## [211,]  -0.0367463123   0.0403736004   3.146553e-02   9.274742e-03   0.0755621788
## [212,]   0.0363668873   0.0160899835  -7.558342e-02   3.934954e-02   0.1104269850
## [213,]   0.0631408781  -0.0016417891   2.326019e-02   6.721049e-03   0.0596710871
## [214,]   0.0824104478  -0.0028836116  -1.381166e-01   1.260566e-02   0.0125738562
## [215,]  -0.0332612618  -0.0070049473   1.023175e-01  -7.624426e-03   0.0197380684
##                  [,26]          [,27]          [,28]          [,29]          [,30]
##    [1,]   4.764045e-04  -0.0396447676  -0.0448677162  -0.0031901455  -7.079101e-02
##    [2,]   1.534710e-02  -0.0265884868  -0.0738147043   0.0955370671  -3.060878e-02
##    [3,]  -1.568758e-02  -0.0189799330   0.0409966846   0.1312720836   1.522611e-02
##    [4,]  -1.208681e-01  -0.0960707396   0.0417340189  -0.0029835989  -1.268420e-01
##    [5,]  -2.251138e-01  -0.1490840874  -0.0303640607  -0.0154978467   8.656261e-03
##    [6,]  -2.053034e-01  -0.0475660817   0.0742782026  -0.0545302523  -5.188245e-02
##    [7,]   3.441882e-02   0.0074848189  -0.0447003555   0.0039024155  -1.253219e-01
##    [8,]  -5.171514e-02  -0.0166278259   0.0136605835   0.0066606204   1.336578e-01
##    [9,]  -1.038932e-01  -0.1022899469   0.0253133976  -0.2022006124  -9.861835e-02
##   [10,]   3.490846e-02  -0.0034491792  -0.0426706804  -0.0865887077  -1.033309e-01
##   [11,]   5.034230e-02   0.1074025056  -0.0558045785   0.0162875901  -4.971429e-03
##   [12,]  -8.438451e-02   0.0906822243   0.0517986626   0.1168240607  -6.176452e-02
##   [13,]   3.560422e-02   0.0631688822   0.0869044807   0.0227126162  -1.409942e-02
##   [14,]   3.898878e-03   0.0456638889   0.0089309685   0.0568599803   5.303118e-02
##   [15,]   4.037474e-03  -0.0015858549   0.0172132679  -0.0495970178  -1.099443e-02
##   [16,]  -6.943827e-02  -0.0339916467  -0.0518202910   0.0131350379  -6.257695e-02
##   [17,]  -2.864471e-02  -0.0484656194   0.0520712064   0.0382480346   2.247973e-02
##   [18,]   2.010896e-02   0.1067267026  -0.0339086010  -0.0082127121  -2.575210e-03
##   [19,]   4.844071e-02  -0.0833637690  -0.1389223432   0.0100158126  -8.933287e-02
##   [20,]   3.881496e-02   0.0309842934  -0.0554737402   0.0320334830   1.647995e-01
##   [21,]  -1.443977e-01  -0.0190090134  -0.0829508641   0.0405374200  -3.070204e-03
##   [22,]   5.800992e-02  -0.0370984311   0.1352859185   0.0926491567  -5.438865e-02
##   [23,]  -8.103965e-02   0.0490052706   0.0163377619   0.0574714377  -9.527836e-02
##   [24,]   2.267280e-02   0.0315290389   0.0096732042  -0.0031959571  -9.150683e-02
##   [25,]   1.338793e-02   0.0072153236   0.0108610795  -0.0197487834   3.923290e-02
##   [26,]   1.602060e-02  -0.1125726520   0.0012880456   0.0300994506   1.407164e-02
##   [27,]  -5.829756e-02  -0.0038053698   0.0317053270  -0.0208087153   2.481714e-02
##   [28,]  -5.915697e-02  -0.0767794291   0.0186293959  -0.0107946783   4.599661e-02
##   [29,]  -5.915697e-02  -0.0767794291   0.0186293959  -0.0107946783   4.599661e-02
##   [30,]  -2.891364e-02  -0.0629280810  -0.0967807939   0.0883577525   8.382953e-02
##   [31,]  -9.046325e-02   0.0422689035  -0.0902851426  -0.1284029272   4.942732e-02
##   [32,]  -6.576322e-02   0.0037674608   0.0493253033  -0.1139047084  -4.455138e-02
##   [33,]  -2.311700e-02   0.1289295950   0.1067891668  -0.2213460639  -7.618144e-02
##   [34,]  -9.644593e-02   0.0938101752   0.0270056064  -0.0634036706  -5.076017e-02
##   [35,]  -5.228274e-02   0.0947021430  -0.0035532664   0.0369917550   1.253038e-01
##   [36,]   5.004283e-02   0.0406892277  -0.0282300021  -0.0082876597   5.980134e-02
##   [37,]   1.992949e-02  -0.0236141668  -0.0649381594  -0.0613778826   4.926044e-02
##   [38,]  -3.892289e-02   0.1344054722   0.0513150725  -0.0718773263   1.010916e-01
##   [39,]  -1.614444e-01   0.0024156446   0.0596198876   0.0132131243   1.951464e-02
##   [40,]   1.280393e-01   0.0973822247   0.0556634207  -0.0003607059  -7.457786e-02
##   [41,]   1.614495e-02  -0.0444115114  -0.0930623956  -0.0711922276  -9.018324e-02
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## [42,] -1.635692e-01  0.0008382737  0.0419693164  0.0066300763  2.932168e-02
## [43,] -1.117261e-01 -0.0654854291  0.0295495422 -0.0212376045 -4.050984e-03
## [44,]  4.273701e-02  0.1094241054 -0.0129182166  0.0042882637 -4.590757e-03
## [45,] -2.474730e-02  0.0388174916  0.0512288587 -0.0489405568  8.830678e-02
## [46,] -2.634922e-02 -0.0569432551 -0.0049440141 -0.0523406595  3.997909e-02
## [47,] -7.238086e-02 -0.0417828006 -0.0349522014 -0.0031321564 -1.094720e-02
## [48,] -8.438451e-02  0.0906822243  0.0517986626  0.1168240607 -6.176452e-02
## [49,]  2.325458e-02 -0.0895522432 -0.0248170441 -0.0084997867 -6.237223e-02
## [50,] -8.048350e-02 -0.0009637759 -0.0094324839  0.0117120076  2.149888e-02
## [51,]  4.037474e-03 -0.0015858549  0.0172132679 -0.0495970178 -1.099443e-02
## [52,] -2.781761e-02 -0.0087508500 -0.0412449833 -0.0379774479 -1.343823e-02
## [53,]  8.117112e-02 -0.0263703948 -0.0196571752 -0.0337256748  7.984202e-02
## [54,] -6.943827e-02 -0.0339916467 -0.0518202910  0.0131350379 -6.257695e-02
## [55,]  3.122870e-02 -0.0929288516 -0.0007096251 -0.0449089438  2.972430e-02
## [56,]  5.045195e-02  0.0069258114 -0.0660043884  0.0210605849 -1.055583e-02
## [57,]  8.300478e-02 -0.0284344243 -0.0316615228  0.0659137513 -1.050181e-01
## [58,]  8.549072e-02  0.0481049240  0.0607948750 -0.0597183650 -4.224886e-03
## [59,] -2.061530e-02  0.0138093690  0.1106664938  0.0436739121  6.379990e-03
## [60,] -4.177372e-02  0.0558268845 -0.0028869268 -0.0718655745  6.047640e-03
## [61,]  6.769639e-03 -0.0246126305  0.0154284689 -0.0120956391  9.886444e-02
## [62,]  6.769639e-03 -0.0246126305  0.0154284689 -0.0120956391  9.886444e-02
## [63,]  3.649876e-02 -0.0397400902  0.0138198229  0.0270974526  1.447328e-02
## [64,]  1.842146e-02  0.0630167628  0.0675654322 -0.0483136416 -1.932884e-02
## [65,]  6.518826e-02 -0.0154638928 -0.0711478917  0.1516418987 -5.909658e-02
## [66,]  5.201722e-02  0.0752228884 -0.0554032101 -0.1005398441  6.473284e-03
## [67,] -5.273384e-02  0.0173092990 -0.0058134600  0.0145662763 -2.544248e-02
## [68,] -2.680718e-02 -0.0398894840 -0.0413019058  0.0767617030  2.212628e-04
## [69,] -4.059556e-02  0.0310112897  0.0630108954 -0.0490017476 -4.225006e-02
## [70,]  3.135458e-02  0.0115327291  0.0453698031 -0.0623704954  9.308764e-02
## [71,] -3.371194e-02 -0.0396295680  0.0349700608  0.0793733525 -1.163952e-01
## [72,]  6.957633e-02  0.0021052043 -0.0349602131 -0.1001513957 -5.574634e-03
## [73,] -8.437737e-02  0.0128896211 -0.0647282503  0.0215109258 -7.852704e-02
## [74,]  5.097877e-02 -0.0381822306 -0.0138345244  0.0111527781 -1.719774e-02
## [75,]  8.583819e-02 -0.0604567192 -0.0765070901 -0.0568003651  7.011047e-02
## [76,] -1.574361e-02 -0.0236024091 -0.0426281097  0.0764939482  1.692595e-01
## [77,] -1.464856e-02  0.0238183097  0.1690827801  0.0561879218 -1.884902e-02
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## [82,] -5.729584e-02  0.0621425035 -0.0634032353  0.0261156802  2.582347e-03
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## [85,] -2.274994e-02 -0.0178102128  0.1524738627 -0.0325566246  2.769241e-04
## [86,]  9.558975e-02 -0.0428354334  0.0112211709  0.0397237821 -2.057532e-02
## [87,]  5.288138e-02 -0.0879561897 -0.0918903126  0.0327990910 -7.577599e-02
## [88,]  5.344965e-03  0.0226308312  0.0399728935 -0.0235243596  4.656764e-02
## [89,]  6.985240e-02  0.0031018893 -0.0905785581 -0.0041110732  6.745508e-02
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## [91,] -5.449082e-02  0.0048290698 -0.1030854974 -0.0070907996 -9.029600e-02
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## [94,] -6.437047e-02 -0.0260951824 -0.0450037510  0.0690668598  4.687227e-02
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##  [96,] -5.760158e-02  0.0457424776  0.0115294432 -0.0532766249 -8.973740e-02
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## [100,] -5.232134e-03 -0.0066533925  0.0549498729  0.0478886695 -6.544894e-02
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## [104,]  1.000506e-01  0.0630662450  0.0859244783 -0.0467935691  3.012265e-05
## [105,]  8.683030e-02 -0.0773771307  0.0347142091  0.1661996691  8.345749e-02
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## [118,]  1.062230e-01  0.0520425391 -0.0977208142  0.0281228749  4.311194e-02
## [119,]  5.589839e-02 -0.1462599748  0.0918661168  0.0240096324  2.501030e-02
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## [128,]  3.937171e-02 -0.0568163560  0.0130644785 -0.1235149364  4.776075e-03
## [129,] -1.609067e-02 -0.1077059098 -0.0709389566  0.0790383788 -7.988203e-03
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## [131,]  1.660222e-01  0.1348963151  0.1153443251 -0.0544042523  5.692023e-02
## [132,] -1.426941e-01  0.1013383098 -0.1065519785 -0.0772214159  2.734738e-02
## [133,] -1.653450e-02 -0.0629334810 -0.0895336728 -0.0034410480 -1.159227e-01
## [134,] -1.228411e-03 -0.1002223595  0.0032282447 -0.0908584568 -8.453759e-03
## [135,]  8.549072e-02  0.0481049240  0.0607948750 -0.0597183650 -4.224886e-03
## [136,]  8.583819e-02 -0.0604567192 -0.0765070901 -0.0568003651  7.011047e-02
## [137,] -5.167501e-02 -0.0236734072  0.0021136572 -0.0339194495  1.243025e-02
## [138,]  1.602060e-02 -0.1125726520  0.0012880456  0.0300994506  1.407164e-02
## [139,] -1.303895e-01  0.1958863282 -0.0741868045  0.1246708992 -3.407005e-02
## [140,]  9.239298e-02 -0.1482231145  0.0540734735  0.0120656624 -3.482194e-02
## [141,]  2.594166e-02  0.0397946587 -0.2786132052  0.0430158135 -1.735614e-01
## [142,] -1.614444e-01  0.0024156446  0.0596198876  0.0132131243  1.951464e-02
## [143,]  2.947367e-01  0.1198389033 -0.0255299015  0.1060913969 -6.682938e-03
## [144,]  6.731531e-02  0.0675538663  0.0023521362 -0.0490471847  9.254382e-03
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## [146,]  5.209703e-02  0.1011779536 -0.0147459576 -0.0657671747 -1.285712e-01
## [147,]  4.297421e-02 -0.0119678968 -0.0559944736 -0.0715240281 -1.782181e-01
## [148,]  1.668223e-03  0.0495704823 -0.0584417182  0.0654079246 -1.115001e-02
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## [150,]   1.842146e-02   0.0630167628   0.0675654322  -0.0483136416  -1.932884e-02
## [151,]   3.471752e-02   0.0338859246   0.0946578574  -0.0214355328   4.209547e-02
## [152,]   8.767637e-03   0.0285320423   0.0594878896   0.0185738476  -4.019793e-02
## [153,]   5.239817e-02   0.0296002792   0.0629556826  -0.0709611177  -1.913576e-02
## [154,]   5.629057e-02  -0.0268771067  -0.0007719089  -0.0097280307  -2.969510e-03
## [155,]   8.009078e-02  -0.0181637318   0.0110689450   0.2034594002  -1.283613e-01
## [156,]   1.014626e-01  -0.1049759956   0.2131369831  -0.0158930632  -2.602243e-02
## [157,]   4.044395e-02   0.0062444216  -0.1508681107  -0.0567048923  -4.417633e-03
## [158,]   9.552220e-04   0.0276350950   0.0456660746   0.0949355836  -7.325605e-02
## [159,]  -3.911354e-02  -0.0823188864  -0.0146061863  -0.0716166534  -1.170028e-02
## [160,]  -4.205683e-02  -0.0431497913  -0.0222385755   0.1707051256   8.195222e-02
## [161,]  -1.056548e-01   0.0791509834  -0.0081804840   0.1210964580  -6.722199e-02
## [162,]   1.110126e-02   0.0137518557   0.0567650095  -0.0738390301  -2.198124e-03
## [163,]  -3.035892e-02  -0.0565545485   0.0658406865   0.0089820570  -1.182032e-01
## [164,]  -4.897831e-02   0.0028444056  -0.0701631723   0.0434057491   6.130737e-02
## [165,]  -1.255000e-03  -0.0089525150  -0.0126751329  -0.0460537920  -1.314962e-01
## [166,]   1.408444e-01  -0.0308894863   0.0278476650   0.0002265460  -1.102726e-01
## [167,]  -5.109670e-03  -0.0238627191   0.0361271487  -0.0915882102  -2.124374e-02
## [168,]  -2.400250e-02  -0.0043793784   0.0872036151  -0.1185980946  -9.964025e-02
## [169,]   2.174519e-03   0.0113234770  -0.0215923658   0.0531078530   1.502624e-01
## [170,]   7.591429e-02  -0.0762960796   0.0583496721  -0.0016572664  -2.859667e-02
## [171,]  -2.714165e-02   0.0625457941  -0.0665189367  -0.0201818074  -2.670117e-02
## [172,]  -1.475282e-02  -0.1416174743  -0.0083386178   0.0277334770  -5.966187e-02
## [173,]  -1.080653e-01  -0.0949265677   0.1143755971  -0.0850004334  -3.871101e-02
## [174,]  -5.956891e-02   0.1032413522   0.0662990309   0.0215146764   9.080207e-02
## [175,]   2.119683e-02  -0.0440944391   0.0711420912   0.0584929186   2.792492e-02
## [176,]  -4.898336e-02   0.0597080652  -0.1158794368  -0.0865373015   1.322978e-01
## [177,]   6.270741e-02  -0.0091704898   0.0562540049  -0.0295859287   1.808032e-02
## [178,]  -4.462502e-03   0.0192284287   0.0455891905   0.0454230486   3.256611e-02
## [179,]  -1.070171e-01  -0.0594945427  -0.0240743423  -0.0557337180  -1.298236e-02
## [180,]   9.558975e-02  -0.0428354334   0.0112211709   0.0397237821  -2.057532e-02
## [181,]   6.985240e-02   0.0031018893  -0.0905785581  -0.0041110732   6.745508e-02
## [182,]  -3.331693e-03  -0.0235608866  -0.0089096356   0.0418957533  -7.356666e-02
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## [185,]   8.561900e-02  -0.0698061879  -0.0625636205   0.0112332640   1.111622e-01
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## [189,]   2.576385e-02   0.0218596231  -0.0499312065   0.1194494997   2.297277e-02
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## [201,]  -1.785396e-02  -0.0063464078  -0.0122510968   0.0940411749  -1.666364e-01
## [202,]   1.727919e-02   0.0394831998  -0.0267695774   0.0029000191   1.142392e-01
## [203,]   1.547670e-02  -0.0714620352  -0.0788651103  -0.0430140878  -8.159989e-02
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## [204,] -1.303895e-01  0.1958863282 -0.0741868045  0.1246708992 -3.407005e-02
## [205,]  2.084147e-02  0.0043886514  0.0070621092 -0.0701748615  1.978473e-02
## [206,] -3.296765e-02 -0.0441555244  0.0551718632 -0.0441449066  6.956104e-02
## [207,] -1.886430e-05 -0.0085314575 -0.0331677388  0.0287196446  6.315443e-02
## [208,] -3.263716e-06  0.0443513028  0.0452605008  0.0541386041 -5.484612e-03
## [209,]  2.559338e-03  0.0417354438  0.0161096266  0.1152189091 -3.402814e-02
## [210,]  8.671133e-02  0.1359962888  0.0179192400  0.0827368041 -1.164361e-01
## [211,] -4.660080e-02 -0.0265613519 -0.0289214402  0.1219088397  8.428902e-02
## [212,] -6.258314e-02  0.0212950462 -0.0867460193  0.0739940706  8.629837e-03
## [213,]  4.580859e-02  0.0099583222 -0.0964954174 -0.0557297702 -1.658099e-02
## [214,] -8.747002e-04 -0.0081961712 -0.1105794414  0.0096021398 -1.687873e-02
## [215,]  6.190157e-03  0.0002260224 -0.0464381247 -0.0202069601 -3.307951e-02
##               [,31]         [,32]         [,33]         [,34]         [,35]
##    [1,] -0.0635802366  6.004949e-02  2.247693e-02  0.0196652645 -0.0269887635
##    [2,]  0.0185535949  5.964212e-02 -1.208749e-01 -0.1206053948 -0.0803843797
##    [3,] -0.0586088101  1.230347e-01 -4.568541e-03 -0.0273073804 -0.1363284883
##    [4,] -0.0087692595 -4.176743e-02 -1.756601e-01  0.0108066755  0.0221645875
##    [5,]  0.0723700499  1.250275e-02 -4.873830e-02  0.0433573115  0.0100545346
##    [6,]  0.0644277308  2.676059e-02 -8.122846e-02  0.0040414596  0.0729470379
##    [7,]  0.1656029307  1.088660e-01 -4.395602e-02 -0.0295929137  0.0157446535
##    [8,] -0.1064548440  5.384272e-02  4.723832e-02  0.1247501617  0.1156616591
##    [9,] -0.1656743335 -6.605578e-02 -4.301517e-02  0.0824571566  0.0931045810
##   [10,]  0.0040833510 -1.394086e-02  4.720806e-02 -0.0727043698 -0.0938742320
##   [11,] -0.2628008857  2.831930e-02  2.080102e-01 -0.0178265519 -0.0602642956
##   [12,] -0.0536066779  7.961314e-02 -1.051228e-02  0.0265775273  0.0106653927
##   [13,] -0.1183084643  3.037644e-02 -6.858051e-03 -0.0228509967  0.0085687557
##   [14,] -0.0083328427 -1.156298e-01  8.616670e-02  0.0108814007  0.0150313898
##   [15,]  0.0407618541  4.534649e-02  4.842816e-02  0.0247601998 -0.1118614915
##   [16,]  0.0043784397 -6.278805e-02  1.191991e-01 -0.1454421699  0.0585604173
##   [17,] -0.0527826476  8.873899e-03 -9.062773e-02 -0.0150082613 -0.0399042607
##   [18,]  0.0112453006  2.746700e-03 -6.331713e-03  0.0225044660  0.0292429649
##   [19,]  0.1035599794  6.565561e-02  6.326150e-02  0.0382229566  0.0056393428
##   [20,]  0.0511697361 -6.956325e-02 -7.110345e-02 -0.0229931751 -0.0859158278
##   [21,]  0.0121678587 -5.169664e-03 -1.783314e-02  0.0335417952  0.0458374360
##   [22,] -0.1586307996  2.741867e-02 -3.577298e-02  0.0028108928  0.0722110896
##   [23,]  0.0683845270 -6.608925e-03  1.713725e-01 -0.0151392429  0.0504686527
##   [24,]  0.1156374256  3.889142e-02  3.272410e-02 -0.0895012409 -0.1352982217
##   [25,] -0.0722734504 -4.776204e-03 -5.811970e-02 -0.1645008643 -0.0782499281
##   [26,]  0.0020701149 -4.880569e-02  7.469123e-03 -0.0666307953  0.0145804414
##   [27,]  0.0476407907 -1.977311e-02  3.027316e-02  0.0132444320 -0.0178493291
##   [28,]  0.0107142042  2.023874e-02 -3.919556e-03  0.0329958538 -0.0498711084
##   [29,]  0.0107142042  2.023874e-02 -3.919556e-03  0.0329958538 -0.0498711084
##   [30,]  0.0079592871 -4.559870e-02 -1.900188e-02 -0.0609898565  0.0269254856
##   [31,]  0.0223974003 -3.422638e-02  1.517760e-02  0.0639747722 -0.0073833390
##   [32,] -0.0020903247  5.687355e-03 -2.938781e-02 -0.0869310338  0.0656536430
##   [33,]  0.0423949954 -1.408092e-01 -3.006879e-02 -0.1734466037 -0.0264499212
##   [34,] -0.0088854827 -8.623781e-03 -7.293387e-02  0.0359520161  0.0818074220
##   [35,]  0.0223858443 -3.334862e-02 -4.125830e-02  0.0384879441  0.0201513264
##   [36,] -0.0666033408 -7.681347e-03 -3.895303e-04  0.0618792273  0.0192524830
##   [37,]  0.0640893307  1.845950e-02  3.888938e-02 -0.0654980169  0.0211866865
##   [38,] -0.0243922338 -1.305047e-02  4.045258e-02  0.0849896734  0.0135352101
##   [39,]  0.0414407749  1.019811e-01  9.816836e-02  0.0204587597 -0.0154648110
##   [40,]  0.1432205110 -1.893427e-03  6.218491e-02  0.0331706631 -0.0098191519
##   [41,] -0.0481555902 -1.346953e-01 -4.391208e-02  0.1436166578  0.0548625706
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## [42,] -0.0584858079 -8.561603e-02 -5.773465e-02  0.1246926396 -0.0593987503
## [43,]  0.0317765727 -1.216732e-01  1.052072e-02 -0.0725088097 -0.0241517257
## [44,]  0.0373425576  2.460577e-02 -1.130727e-02  0.0223625486 -0.0124108733
## [45,]  0.0211133137 -7.943171e-02  5.250045e-02 -0.0328407813 -0.0803233509
## [46,]  0.0522754060 -4.473682e-02 -2.304879e-02  0.0019259878 -0.0219217218
## [47,]  0.0176864988 -1.535812e-02 -6.594934e-02  0.0021610043  0.0042543276
## [48,] -0.0536066779  7.961314e-02 -1.051228e-02  0.0265775273  0.0106653927
## [49,] -0.0229835647 -9.057832e-02 -3.826961e-02 -0.0105428784 -0.0124891656
## [50,]  0.1046675907  1.888259e-01  5.922958e-02  0.1292981820 -0.1396149977
## [51,]  0.0407618541  4.534649e-02  4.842816e-02  0.0247601998 -0.1118614915
## [52,]  0.0325888054  2.972424e-02  3.632963e-02 -0.0373650934 -0.1142766179
## [53,] -0.0646721293  4.598505e-02 -7.163933e-02 -0.1010847481 -0.0702452125
## [54,]  0.0043784397 -6.278805e-02  1.191991e-01 -0.1454421699  0.0585604173
## [55,] -0.0341421540 -6.307278e-02 -7.245376e-02  0.0750532261 -0.0583824198
## [56,] -0.0473905162  1.593847e-01 -4.705118e-02  0.0537403663 -0.0135909802
## [57,]  0.0430430837 -1.441385e-02 -5.720766e-02  0.0365339320  0.1158472199
## [58,] -0.0233866591 -4.839222e-02 -1.467801e-01 -0.0308222241  0.0571243049
## [59,]  0.0073185620 -1.082418e-02  9.395659e-02  0.0598515136  0.1005881182
## [60,]  0.0531079516  3.912014e-03  7.186359e-02 -0.1074613437 -0.0412142746
## [61,]  0.0892100368 -7.014301e-02  2.856316e-02  0.1028733489 -0.1046609017
## [62,]  0.0892100368 -7.014301e-02  2.856316e-02  0.1028733489 -0.1046609017
## [63,] -0.0326495711  1.566665e-02 -9.445263e-03  0.0673531631  0.0483414482
## [64,]  0.0390498822  1.111271e-01  5.707920e-02  0.1262069424  0.0048683400
## [65,]  0.0207917694 -4.720131e-02  3.918916e-02 -0.0258568397 -0.0912019241
## [66,]  0.0211957830  6.776084e-04 -1.342992e-01 -0.0525567308 -0.0359370243
## [67,]  0.0051551220 -6.362013e-02 -8.343447e-04 -0.0124408542  0.0987618261
## [68,] -0.0547722908  4.887610e-02  5.394355e-02 -0.0113907588  0.0298151886
## [69,]  0.0823016603 -5.570780e-02  1.742936e-02  0.0270854154 -0.0221634190
## [70,] -0.0017871865  9.888968e-02  1.281827e-01  0.1529156654  0.0521733668
## [71,] -0.0274161927 -7.085951e-03  1.197247e-02 -0.0236478349 -0.0439479066
## [72,] -0.0702522798  1.143159e-01  1.132224e-02 -0.0583979530  0.0369098014
## [73,]  0.0563816474 -5.681029e-02 -9.780345e-02 -0.0046362763 -0.0636549020
## [74,] -0.0216925092 -2.051561e-02  4.888189e-02 -0.0149321464 -0.1178564262
## [75,] -0.0661005947  5.694531e-02 -6.768262e-03  0.0307846002  0.0227850851
## [76,]  0.0246289619  1.158091e-02 -2.024490e-02  0.0370645796 -0.0030800861
## [77,]  0.0230955691 -8.639257e-02  7.408763e-02  0.0988603113  0.0273807682
## [78,] -0.0365710513  2.362113e-02 -9.130477e-03  0.0161916808 -0.0703292722
## [79,]  0.0121310164  1.216238e-02 -6.715622e-03 -0.0427568034  0.0218047918
## [80,]  0.0256287873  2.056196e-02  6.571530e-02 -0.0703471926 -0.0142185130
## [81,]  0.0280139105  6.636094e-03  8.938258e-02  0.0388156140  0.1200509033
## [82,] -0.0853239596 -4.090146e-03 -9.866696e-02  0.0373752497  0.0496624069
## [83,] -0.0794107631 -6.891036e-02  1.014320e-01 -0.0475322855  0.0545811888
## [84,]  0.0833692132  1.224872e-01  1.377974e-01 -0.0165442178  0.0322129978
## [85,] -0.0973278994 -1.359440e-02 -8.084983e-02 -0.0043081682 -0.0375261043
## [86,]  0.0105524393  4.880058e-02 -1.021149e-01  0.0247359633  0.0090780580
## [87,]  0.0493507026  1.139966e-03 -9.098233e-02 -0.0266890785  0.0712098549
## [88,] -0.0840926894 -2.624406e-02  1.983567e-02 -0.0236398856  0.0308234939
## [89,]  0.0124197016  2.357463e-02  5.631173e-03 -0.0148640368  0.0151670494
## [90,]  0.0062247303  7.896697e-02  4.494306e-02  0.0145260141 -0.0191973553
## [91,] -0.0881455001 -2.112786e-02  7.765748e-02 -0.0124106040 -0.0187876274
## [92,] -0.0151474192 -3.481924e-03 -4.918903e-02  0.0802640261 -0.0073343281
## [93,]  0.1244135418 -4.535911e-02  8.960693e-02  0.0170018196  0.1195756890
## [94,]  0.0038003227  1.083961e-01  9.282569e-04 -0.0331232638 -0.0094966248
## [95,]  0.0279972161  6.829197e-04 -9.011481e-02  0.0130623341 -0.1109609181
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##  [96,]   0.0045787419 -4.930977e-03 -1.335169e-02 -0.0016704546 -0.0184840750
##  [97,]  -0.0216038007  4.889473e-02 -2.350775e-02 -0.0059666340  0.0090252446
##  [98,]   0.0257058803 -3.975395e-02  6.553303e-02  0.0901786499  0.0607289175
##  [99,]  -0.2106885679 -6.447913e-02 -1.182274e-02  0.0496200042  0.0245012433
## [100,]  -0.1582136751 -4.109048e-02  4.513431e-02 -0.0772373805  0.1430760333
## [101,]   0.0121706142  4.556547e-02  2.186575e-02 -0.0769896021 -0.0153327176
## [102,]   0.0431493200 -3.782583e-02  6.620840e-02 -0.0989783395  0.0762232999
## [103,]  -0.0152710520  2.000370e-02 -3.457333e-02 -0.0152065950  0.0938100120
## [104,]  -0.0136985702  9.275555e-02 -3.727579e-02 -0.0617438700 -0.0976283493
## [105,]   0.0406976580 -1.100900e-01 -1.485016e-02 -0.0690434560  0.0590809023
## [106,]   0.0421609371 -7.168808e-02  1.052923e-01  0.0469289898 -0.0311504177
## [107,]   0.0273764731 -3.495848e-03 -7.640803e-02 -0.2442366091  0.0784810634
## [108,]  -0.0708387121  7.473827e-03 -4.386023e-02  0.0254502158  0.0230821834
## [109,]   0.0352554620 -8.973702e-02  5.855124e-02  0.0658169312 -0.0615280957
## [110,]  -0.0666033408 -7.681347e-03 -3.895303e-04  0.0618792273  0.0192524830
## [111,]   0.0473562532 -1.318899e-01  2.614136e-02  0.0655078484 -0.0006112923
## [112,]  -0.0786360823 -1.123870e-01  3.831811e-02  0.1476796469 -0.0621108383
## [113,]   0.0174403955 -3.146785e-02 -1.050552e-01  0.0039467614  0.0303883696
## [114,]   0.0912643184  2.656921e-02  6.685631e-02 -0.0549833737 -0.0619160187
## [115,]  -0.0171886232  4.839882e-02  7.782272e-02  0.0371172711  0.0919022747
## [116,]   0.0640893307  1.845950e-02  3.888938e-02 -0.0654980169  0.0211866865
## [117,]  -0.0243922338 -1.305047e-02  4.045258e-02  0.0849896734  0.0135352101
## [118,]  -0.0264620629 -2.420447e-02  3.159089e-02  0.0656297062 -0.0877447634
## [119,]  -0.0748603746 -3.782137e-02  6.600291e-02  0.1657178098 -0.2011505195
## [120,]   0.0335536860  1.335439e-02  3.075214e-02 -0.0189338839  0.0537195257
## [121,]   0.0708535832  1.197651e-01  3.621947e-02 -0.0812943609 -0.0407784720
## [122,]  -0.0547961163  8.517337e-02 -8.359306e-02  0.0624521010 -0.0894550668
## [123,]   0.1432205110 -1.893427e-03  6.218491e-02  0.0331706631 -0.0098191519
## [124,]  -0.0085667038 -7.959370e-02  8.086957e-02  0.1183164919 -0.0424835807
## [125,]  -0.0315800962 -2.182099e-02  8.720357e-03 -0.0201383461  0.1597322558
## [126,]  -0.0774465486  8.160977e-02 -2.021749e-02  0.0262044201  0.0194251154
## [127,]   0.0875941484 -5.047034e-02 -5.565768e-02 -0.0039749384 -0.0064529938
## [128,]   0.0288668013 -4.085104e-02 -4.993676e-02  0.0203434117 -0.0183642862
## [129,]   0.0808646929  7.777809e-02  3.860885e-02 -0.0278184235  0.0699646609
## [130,]  -0.0490365615  3.793873e-03 -4.817143e-02 -0.0861572531 -0.0791806459
## [131,]   0.1000460622 -1.630955e-01 -8.674761e-02  0.1165281088  0.0653223024
## [132,]  -0.2989236521 -2.729283e-02  1.678814e-01 -0.1956850821 -0.0415419133
## [133,]   0.0094407647  3.101400e-02  8.079431e-03  0.0026627219 -0.1038718894
## [134,]  -0.0036065018 -4.808568e-02  9.914034e-02  0.0177487794 -0.0383438672
## [135,]  -0.0233866591 -4.839222e-02 -1.467801e-01 -0.0308222241  0.0571243049
## [136,]  -0.0661005947  5.694531e-02 -6.768262e-03  0.0307846002  0.0227850851
## [137,]   0.0268132861  2.278613e-02  5.940433e-03  0.0886548462  0.0089996735
## [138,]   0.0020701149 -4.880569e-02  7.469123e-03 -0.0666307953  0.0145804414
## [139,]   0.0495092426  3.319475e-02 -2.785991e-02  0.0500022585 -0.0490032283
## [140,]   0.0137160356  3.006333e-05  7.865082e-02 -0.0286034790 -0.1000259365
## [141,]   0.0499247399  1.233698e-01 -1.412730e-01  0.1769087153  0.0831140695
## [142,]   0.0414407749  1.019811e-01  9.816836e-02  0.0204587597 -0.0154648110
## [143,]  -0.1012376869 -1.216692e-02 -5.885019e-02 -0.0450793392 -0.0878517951
## [144,]   0.0418295506  1.514459e-01 -9.340187e-02  0.0074277206  0.1053819914
## [145,]   0.0292031814 -8.516138e-02 -6.578182e-02 -0.0510983504 -0.0033279307
## [146,]  -0.1030277465  2.896214e-02  3.552948e-02  0.0449577366  0.0295336729
## [147,]  -0.0099362497 -6.572908e-02  2.640639e-02  0.0263447170  0.0066063709
## [148,]  -0.0145860138 -6.056230e-03 -7.462685e-02 -0.0143532770  0.0517786799
## [149,]   0.0251522258 -4.077565e-02  7.820580e-02 -0.0343529236  0.0276496103
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## [150,]   0.0390498822  1.111271e-01  5.707920e-02  0.1262069424  0.0048683400
## [151,]  -0.0928981503  1.468116e-01 -3.517430e-02 -0.0253820454 -0.0281377354
## [152,]   0.0365079156 -8.227380e-03  1.767444e-02 -0.0948992592  0.0557064418
## [153,]   0.0436945893  7.330218e-03 -1.207339e-01 -0.0339159293 -0.1037618540
## [154,]   0.0089851272 -7.922574e-03  9.595568e-02  0.0424110431  0.0170812501
## [155,]  -0.0157367914 -2.408230e-01 -5.692612e-02  0.0984544228 -0.0860066179
## [156,]   0.0982233239  1.599080e-01  1.115233e-01 -0.1180513450  0.0364447318
## [157,]   0.1359134848 -6.052427e-02  5.825830e-02 -0.0309268649  0.0358327404
## [158,]   0.0697397524 -6.154125e-02  6.388630e-02 -0.0583809020  0.0501620370
## [159,]   0.0157605448  1.117909e-01 -2.674197e-02  0.0111276107 -0.0341346908
## [160,]  -0.0703422246 -5.936420e-02 -5.709080e-02 -0.0023180085 -0.0177816273
## [161,]  -0.0473686833 -7.676192e-02 -4.726489e-02 -0.0196737515 -0.0037610502
## [162,]  -0.1378521097 -2.718586e-02 -3.988397e-02 -0.0112823225 -0.0859155801
## [163,]   0.0837842287  9.057610e-02  3.484468e-02 -0.0394966304  0.0849871321
## [164,]  -0.0431517794  3.173437e-02  5.333148e-02 -0.0793228282 -0.0781491729
## [165,]   0.0311382240 -9.040658e-02  3.079594e-02 -0.0935196562  0.0726772997
## [166,]  -0.1376466694  1.628123e-01  1.136444e-01 -0.0412207824  0.0834176750
## [167,]  -0.1303348661 -1.387433e-03  7.554237e-02 -0.0131279597  0.1224924193
## [168,]  -0.0186008230 -9.817791e-02 -3.298763e-02 -0.0196488130 -0.0308211920
## [169,]   0.0260089108  5.123689e-02 -7.809775e-02  0.1153576854  0.1583693041
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## [171,]  -0.0445522180  1.795142e-02  8.910474e-02 -0.0270431701 -0.1277795645
## [172,]   0.2325713447  2.147016e-02 -2.710873e-02  0.0316971909 -0.0220686128
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## [211,]   0.0907690122 -1.875555e-02  6.746534e-02 -0.1730994421 -0.0139921728
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## [214,] -0.0007270039 -8.522362e-02  8.145389e-02  0.1116895981  0.0647785351
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##   [2,] -0.0135432890  0.0028721163 -0.0246264825 -0.0530607067 -0.0738592529
##   [3,]   0.0571548735 -0.0617376350 -0.0222516095  0.0252212124  0.0247405227
##   [4,] -0.0399958278 -0.0465364849 -0.0680430520  0.0465667856  0.0300321721
##   [5,]   0.1691621135  0.0971585237  0.0093127024 -0.0627391229 -0.0141910102
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##  [11,]   0.0067824005  0.0690856272 -0.0587289591  0.0149428612 -0.0463885590
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##  [17,]   0.0086592288 -0.0287710727  0.0861037304  0.1084878675 -0.1280795091
##  [18,]   0.0307387892  0.1404110555 -0.1211777404 -0.1367162811 -0.0319916295
##  [19,] -0.0690896485 -0.0320311740 -0.0680670959  0.0235482966 -0.0420419495
##  [20,]   0.0615651940  0.0090424011  0.0128990298  0.1359385170  0.0757671777
##  [21,]   0.0192738622  0.0334037136  0.0911993868  0.0404142541  0.0408733693
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## [127,]  0.0873237188  0.0589070731 -0.0066266989  0.1353661883  0.0338090526
## [128,]  0.0883557879  0.0226726921  0.0931291886 -0.0233511428  0.0831917203
## [129,]  0.0392226376  0.0177759883 -0.2202863649  0.1061046750 -0.0711675954
## [130,]  0.0139539224  0.0100086715 -0.0324612688  0.1384092573 -0.2164716025
## [131,]  0.0078007590 -0.0612960202 -0.0429934819 -0.0897431941  0.0597207862
## [132,] -0.0889804546  0.0049282477  0.0879893387  0.0384122388  0.0903491113
## [133,]  0.0378850540  0.0742415796 -0.0498345138 -0.0179051187  0.0001925921
## [134,]  0.0570966977 -0.0731772069 -0.0356708568  0.0113332960 -0.0740964713
## [135,]  0.1063624998  0.0029473095  0.0108553525  0.0069994973  0.0599155162
## [136,]  0.0476731108  0.0017171714 -0.0347269921  0.0231755365 -0.0857305376
## [137,] -0.0354730457 -0.0020475198 -0.0161249966 -0.0174616205  0.0681887602
## [138,] -0.0275237301  0.0158776258 -0.0083873688 -0.0490583496  0.0200275046
## [139,]  0.1303229511  0.0152649762  0.0049399244 -0.0333138899 -0.0329755020
## [140,] -0.0367637642 -0.0916048167  0.0384760148 -0.0626365430 -0.0789771467
## [141,] -0.0854427113  0.0399753131  0.0575189102  0.2053247044  0.0696108933
## [142,]  0.1169848230  0.0284867343 -0.0232303988  0.0286258096 -0.0759238856
## [143,] -0.0333522928 -0.0339877111  0.0045861593 -0.1405766124 -0.1471001837
## [144,]  0.0061585371  0.1633657065  0.0838028033 -0.0367261042 -0.0031505407
## [145,] -0.0488185755 -0.0575063930 -0.0912698229  0.0389341502  0.0924040822
## [146,]  0.0229397743  0.0456766904  0.0178392208 -0.1251101903  0.0471837940
## [147,]  0.1209467245 -0.0619612678 -0.0354797969 -0.0358300141  0.0831925069
## [148,]  0.0990870257 -0.1599938728  0.0734606678  0.0675757136  0.0325028191
## [149,] -0.1350567017  0.0275185350  0.0248127265  0.0358567085 -0.1310998969
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## [150,]  -0.0300262262  -0.0512275879  -0.0915493071   0.0266820179   0.1191616400
## [151,]  -0.0103038856   0.0375951673   0.1036545987  -0.1091844009  -0.0696549965
## [152,]  -0.0897081411   0.0774817069  -0.0236856419  -0.0335445508  -0.0794878161
## [153,]   0.0058108791   0.0438207529  -0.0420861222  -0.0480850776   0.0214035843
## [154,]   0.0156469640  -0.0854208291   0.0750306140   0.0747129802  -0.0916470784
## [155,]   0.0573005931   0.0584311130  -0.0722352617  -0.0326130286  -0.0016901302
## [156,]   0.0478578909  -0.0571645987  -0.0239672336  -0.0842284275   0.0013251023
## [157,]   0.0123250429   0.1121415226  -0.0044321826  -0.0084301477  -0.1733117480
## [158,]  -0.0004333276   0.0142257187  -0.0211056698   0.0211470936  -0.0406274759
## [159,]   0.0703894562  -0.0572585425  -0.0745964168  -0.0944150818  -0.0319527964
## [160,]  -0.0902781590   0.0046880295  -0.0581325074   0.0594716559  -0.0169494815
## [161,]  -0.0781258532  -0.0136707475   0.0216046164   0.0292172413   0.1349961847
## [162,]  -0.0492527008  -0.0782718737   0.0206959592   0.0550901379   0.0057261520
## [163,]  -0.0689500500   0.0199635859   0.0862254135  -0.0915218307  -0.0176284736
## [164,]  -0.1256022286  -0.1301641970   0.0109026790  -0.0810818332  -0.0157588447
## [165,]   0.1450020587   0.0124547226  -0.0056032934   0.0107730422  -0.0694636657
## [166,]  -0.0815491516   0.0720317867   0.0686086695  -0.0143065367   0.1056199802
## [167,]   0.0491973873  -0.0910495173  -0.0863847565   0.0623297901   0.0890398570
## [168,]  -0.0659997711   0.0103500902  -0.0010119851   0.0047538337  -0.0153725489
## [169,]  -0.0445791201   0.0491793061  -0.0444997590   0.0495699065   0.0190457255
## [170,]  -0.0922842838  -0.0923212791   0.0972009784  -0.0187109414  -0.0139314953
## [171,]  -0.0243596266  -0.0141993645  -0.0307689416  -0.1286677028  -0.0130202614
## [172,]   0.0484988478   0.0582900401  -0.0172094843   0.1316600705  -0.0552312595
## [173,]   0.0451803285  -0.0707403782  -0.0215176067  -0.0231117872  -0.0662496273
## [174,]  -0.0233194895  -0.0322788361  -0.0927102133  -0.0511283818  -0.0903503136
## [175,]   0.0744989315   0.1115820862  -0.0898753371   0.0299833255   0.0861051191
## [176,]  -0.0488185755  -0.0575063930  -0.0912698229   0.0389341502   0.0924040822
## [177,]  -0.0146504606  -0.1469539966   0.0382823657   0.0789966755  -0.0183384462
## [178,]  -0.0560261480   0.0722049285   0.0973511545   0.1218573865   0.0410855367
## [179,]   0.0141144588   0.0025729872   0.0420687418  -0.0044138939   0.0221332286
## [180,]   0.0512054980   0.0134468914  -0.0085283066  -0.0300683519   0.0183236903
## [181,]   0.0039468901   0.0296844456  -0.0090267691   0.1205814059   0.0097250553
## [182,]  -0.0253252445   0.0463146527  -0.0130457850  -0.0001953225   0.0154398173
## [183,]  -0.0504021527  -0.0509105057  -0.0522613446   0.0170040681   0.0229901449
## [184,]  -0.0165794125  -0.0551045400  -0.0965803958  -0.0628708859   0.1711567914
## [185,]  -0.0957963005  -0.0108809640   0.0432825945   0.0026151912  -0.0630711411
## [186,]  -0.0363695256   0.0139513298  -0.0471604992  -0.0660917034   0.0617939454
## [187,]   0.0880088686   0.0334270071   0.0042787243  -0.0977922591   0.1206757406
## [188,]  -0.0066095752   0.0718331588  -0.1964118934   0.1602339915   0.0405242820
## [189,]   0.0589147250  -0.0364058909   0.0923927251  -0.0175323784   0.0372853729
## [190,]   0.0086592288  -0.0287710727   0.0861037304   0.1084878675  -0.1280795091
## [191,]  -0.0305149627   0.0776191841  -0.0537554107  -0.1106504129  -0.0353751470
## [192,]   0.0736572767   0.0103298919   0.1003053965  -0.0363352506   0.0442208280
## [193,]  -0.2206620592   0.0013999617  -0.0493663097   0.0131013061  -0.0486788023
## [194,]   0.0271046454  -0.0055040504  -0.0826852253  -0.0061334472   0.0158542484
## [195,]  -0.1042623338   0.0002819141  -0.0401360878  -0.1111178842  -0.0724908039
## [196,]   0.0657452488   0.0190449102   0.1602529409   0.0796766563   0.0306056122
## [197,]   0.0822724321   0.0024001909   0.0365891261  -0.0209917719  -0.0426239713
## [198,]   0.0144362230  -0.0287018291  -0.0963185863   0.0993641488   0.0969112777
## [199,]   0.0264403852   0.0354435252   0.0165850987  -0.0197533221  -0.1011424084
## [200,]   0.0323828755   0.0553244852   0.1250547622  -0.0804805499  -0.0320631677
## [201,]   0.0460279247   0.0169677100   0.0472256332  -0.1362960986   0.0688539457
## [202,]   0.0625944018   0.0687115526   0.0230652423   0.0525227174  -0.1019143593
## [203,]   0.1113943246   0.0210559017  -0.1569909599   0.0456355736   0.0680797549
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## [204,]   0.1303229511  0.0152649762   0.0049399244 -0.0333138899 -0.0329755020
## [205,]   0.0717021349 -0.1005851229   0.0443811462 -0.0896246375 -0.0543323316
## [206,]   0.0543762853  0.0511959737   0.0348141594  0.0779628265 -0.0620546319
## [207,]  -0.0035390412 -0.1186326173   0.0421127363 -0.0464054489  0.0505939057
## [208,]  -0.1286029063  0.0442900574  -0.0207136548 -0.0321590604 -0.0788334529
## [209,]  -0.0966531275  0.0485055712   0.0569621310  0.0356200743 -0.0200255607
## [210,]  -0.0598714682 -0.0266462564   0.0510305688  0.0295486875 -0.0664807498
## [211,]  -0.0223484918  0.0597113113   0.0011472079 -0.0579819711  0.0388710691
## [212,]   0.0939716243  0.0177987044   0.0709012115 -0.0271185188  0.0515898248
## [213,]  -0.0138727476 -0.0274423089  -0.0053486073 -0.0361020236  0.0849777913
## [214,]   0.0265852001 -0.0080436579  -0.0298766475  0.0456399237 -0.1017445373
## [215,]  -0.0363695256  0.0139513298  -0.0471604992 -0.0660917034  0.0617939454
##                  [,41]         [,42]         [,43]         [,44]         [,45]
##    [1,]   0.0391450321 -0.200928295   0.060521541  0.0424126955 -0.0225414303
##    [2,]  -0.1834492460  0.135106259  -0.062080696  0.0385009062 -0.1155139533
##    [3,]   0.0624412388  0.065219722   0.160759802  0.0158597425 -0.0217733052
##    [4,]   0.1016347772  0.130745746  -0.047117499  0.0874884880  0.0381649289
##    [5,]  -0.0666087135  0.003584295  -0.008545209 -0.0729541540  0.0473158380
##    [6,]   0.0774154476 -0.014003637   0.086759383  0.0830721786 -0.0783924690
##    [7,]   0.0733370800  0.025285106   0.153954422 -0.0093078060 -0.0060722148
##    [8,]  -0.2100975641 -0.073285444   0.020352045  0.0978960223  0.0990933756
##    [9,]  -0.0041098369 -0.008527318   0.041616570 -0.1258464097  0.0678356138
##   [10,]  -0.1447254276  0.007421041  -0.078093322 -0.1029319267  0.1102207917
##   [11,]  -0.1146023840  0.017117401  -0.058529529  0.1050619740  0.0298935040
##   [12,]   0.0318992214  0.031333465   0.063656967 -0.0543515547  0.1195707708
##   [13,]   0.0415841384  0.057631661   0.035662373  0.0252853934  0.0147812946
##   [14,]   0.0148388177 -0.017684003   0.110598444 -0.1498570509 -0.0644977755
##   [15,]  -0.0976178127 -0.018521070   0.013148887  0.0484111214 -0.0484363168
##   [16,]   0.0295280747  0.023157102  -0.034578836 -0.0199098233  0.0254094851
##   [17,]  -0.0333864395  0.048233276  -0.001328534 -0.0068227844 -0.0122444121
##   [18,]  -0.1287647326  0.122519278  -0.158590524 -0.0289559485  0.0118541352
##   [19,]   0.0413194859  0.040075202  -0.047963233 -0.0048655322 -0.0043513317
##   [20,]   0.0130033518 -0.125539084   0.067601133  0.0283315714 -0.0875500295
##   [21,]   0.0068101913  0.028864275   0.018545527  0.0722097399  0.0099047678
##   [22,]  -0.0013631474  0.037918837   0.011560998  0.0901052522  0.0748584983
##   [23,]  -0.0577723615  0.032673707   0.004103621  0.0251619102 -0.0359684672
##   [24,]   0.0453389724 -0.075872102  -0.133840743 -0.0300565597  0.0126442754
##   [25,]   0.0268956183  0.029378904  -0.030985134  0.0858024388  0.0846035297
##   [26,]   0.0115537616 -0.035147896  -0.039384245 -0.1249961669  0.0217909528
##   [27,]  -0.0600031930 -0.014414468  -0.003360825 -0.0201676005 -0.0951646746
##   [28,]  -0.0387740349 -0.044738114   0.069177877 -0.0655508016 -0.0385481906
##   [29,]  -0.0387740349 -0.044738114   0.069177877 -0.0655508016 -0.0385481906
##   [30,]   0.0256342860 -0.023790441   0.028466734  0.0246699617  0.1077624164
##   [31,]   0.0207198931  0.112455499  -0.131205429 -0.0281246255 -0.0006861938
##   [32,]   0.0347627049 -0.027281706  -0.070858499  0.0686615220 -0.0766575694
##   [33,]  -0.1049434658  0.013701644  -0.015537962 -0.0086953583 -0.0770697203
##   [34,]   0.0205797506  0.051113930   0.017710749  0.0018580485 -0.0295470448
##   [35,]   0.0218566204 -0.078942642   0.080847509 -0.0149449600 -0.0111092284
##   [36,]   0.0454321882  0.043790671  -0.057439564 -0.0512427002  0.0236504253
##   [37,]  -0.0691959189 -0.086513802  -0.028660601  0.0912984470  0.1015803494
##   [38,]   0.0955057468  0.069322496  -0.003253444 -0.0893565356  0.0010546789
##   [39,]   0.0040018976  0.033534505   0.009831531  0.0720854089  0.0493771172
##   [40,]  -0.0559363537  0.072720505   0.073744347 -0.0317710947 -0.0745868714
##   [41,]   0.0322260463  0.002249343  -0.039250653 -0.1533370143  0.1184035373
```

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## [42,]  -0.0222632148  -0.048153739  -0.035503177  -0.0190973155  -0.0013368968
## [43,]   0.0251105132   0.031810889   0.061730955  -0.0591892418  -0.0374082996
## [44,]   0.0418594266  -0.039055075   0.020939876  -0.0290552500  -0.0131095091
## [45,]   0.0275535343  -0.060710370  -0.015973975   0.0335806617  -0.0091133396
## [46,]   0.0281053759  -0.024937465   0.042283178  -0.0013073733   0.0037055084
## [47,]   0.0080697933  -0.004768056  -0.006118542  -0.0018022201  -0.0849735840
## [48,]   0.0318992214   0.031333465   0.063656967  -0.0543515547   0.1195707708
## [49,]   0.0547055023   0.120897954   0.165156289   0.0939841283   0.0682835126
## [50,]   0.0013205963   0.031121206  -0.044072434  -0.0366361284  -0.1219853903
## [51,]  -0.0976178127  -0.018521070   0.013148887   0.0484111214  -0.0484363168
## [52,]  -0.0064980161   0.136237579  -0.062650548  -0.0434325730   0.0444554246
## [53,]   0.0410129114   0.148581918  -0.028958861  -0.0621545265  -0.0148867304
## [54,]   0.0295280747   0.023157102  -0.034578836  -0.0199098233   0.0254094851
## [55,]   0.0791646923   0.037237739   0.032000169   0.0176490226  -0.1507274441
## [56,]   0.0012888323  -0.014970623   0.014402297  -0.0640106384  -0.0418389734
## [57,]  -0.0086898479   0.077979042  -0.041230159   0.0344778825  -0.0674703445
## [58,]  -0.0074377523  -0.080478639  -0.105948180   0.0347666722   0.0471321276
## [59,]  -0.0696551910  -0.017430368  -0.034293181   0.0669667841  -0.1437166241
## [60,]  -0.0066177245   0.049841455  -0.049563160   0.0077910989  -0.0773432404
## [61,]  -0.0645706751  -0.015405457  -0.020276098   0.1276435142   0.0860745720
## [62,]  -0.0645706751  -0.015405457  -0.020276098   0.1276435142   0.0860745720
## [63,]  -0.0458989812   0.055642493   0.136502680  -0.0163378706   0.0491275019
## [64,]  -0.0271465202  -0.021308345   0.128187115   0.0159000310   0.0655459868
## [65,]  -0.1752516365  -0.058771119   0.042171558   0.0585252811   0.0080287678
## [66,]  -0.0923842179   0.000676247  -0.031959263  -0.0189287474   0.0517265198
## [67,]  -0.0308675157   0.043283349  -0.016096973   0.0976983843  -0.0009774730
## [68,]   0.0051345728   0.116264596  -0.076219486  -0.0050358964  -0.1361324780
## [69,]   0.0006349185  -0.127768570  -0.027321449  -0.0415766735   0.0951925553
## [70,]   0.0655626113   0.004432441   0.060891887   0.0775181627   0.1178538641
## [71,]   0.0721739440   0.030718992  -0.010181700  -0.0813097927  -0.1425608403
## [72,]   0.0394603103  -0.154429397   0.098416761  -0.0193796523  -0.1292391981
## [73,]   0.0949501708   0.061803216   0.013326337  -0.0467803837  -0.0214499188
## [74,]  -0.1867547537   0.158299146   0.005169117   0.0438567668   0.0274966559
## [75,]   0.0390531495  -0.075899524  -0.075158683   0.0493904768  -0.0206007014
## [76,]   0.0330916921   0.044839625   0.062236729   0.0250898131  -0.0386275375
## [77,]   0.1699040994   0.034206220  -0.307607646   0.0387398549  -0.0711821391
## [78,]  -0.0006419242   0.038182548   0.017523224   0.0347699242  -0.1377383656
## [79,]  -0.0325772229   0.057569511  -0.091711897   0.0109014984   0.1031285105
## [80,]   0.0056753531  -0.064595541   0.022821110   0.0051732094  -0.0123511029
## [81,]  -0.0684244476   0.021243478  -0.023926770  -0.0855469755   0.0329351619
## [82,]  -0.1404820042   0.023164482   0.020934837  -0.1183273379   0.0705097451
## [83,]   0.0002460795   0.046523249   0.075109334  -0.0393386597   0.0546478368
## [84,]   0.0267791617  -0.018116790  -0.033091901  -0.0023427699  -0.0154158080
## [85,]  -0.0334204948   0.057192263   0.010974989  -0.0544686065   0.0111726813
## [86,]  -0.0059153994  -0.086714336   0.035485408   0.0351911200  -0.0303593781
## [87,]   0.0437455211   0.155045717  -0.090511221  -0.0139002748  -0.0399905930
## [88,]   0.0462067039  -0.034885384  -0.087551048  -0.0793100626   0.0626511945
## [89,]   0.0231721914  -0.037020791  -0.085385356  -0.0273805992   0.0161376271
## [90,]   0.0019319649   0.082947412   0.061004691  -0.1901639164   0.0709172592
## [91,]   0.0162759645  -0.064756668   0.067038843  -0.0217254427   0.0162451972
## [92,]   0.0087139359  -0.066938676  -0.039020728   0.0107961645   0.0525056128
## [93,]   0.0370582914  -0.088712516   0.019240191   0.0982353243  -0.0248103472
## [94,]  -0.0673994216   0.067317795   0.024003540  -0.0252548323  -0.0012554802
## [95,]   0.0189644061   0.067737955   0.029442731   0.0111124814   0.0071706165
```

```
##  [96,]  -0.0122565737  -0.077894769   0.135683824  -0.0191891880   0.0591891185
##  [97,]   0.0300711034  -0.131285641  -0.026579457  -0.0498331755   0.0023816156
##  [98,]   0.0061031611  -0.023699977   0.070942708   0.0732086762   0.0039647845
##  [99,]  -0.0958375075  -0.066965905   0.004636691  -0.1555832597  -0.0670660389
## [100,]   0.0082793586  -0.059711616  -0.016641303   0.1105394272   0.0657030277
## [101,]  -0.0967417243   0.066886921  -0.016490028   0.0824122681  -0.0113506867
## [102,]   0.0210780210   0.054333987  -0.102169356  -0.0192301517   0.0096411889
## [103,]   0.0199939367   0.031937126   0.057047001   0.1285641186   0.0583897000
## [104,]   0.0084301463   0.017647987  -0.026271837   0.0055869235   0.0729364939
## [105,]  -0.0700860653  -0.023937716   0.107120743  -0.0006033320   0.0337499672
## [106,]   0.0180853520  -0.033571621   0.043371919  -0.0870942565  -0.0680793402
## [107,]   0.0448794323  -0.039748119   0.044323263  -0.1491295308   0.0102350961
## [108,]  -0.1243647506  -0.004686204  -0.061565387  -0.0648881178  -0.0575425272
## [109,]   0.0038454210   0.052789117  -0.014643317  -0.0116359290   0.0079130118
## [110,]   0.0454321882   0.043790671  -0.057439564  -0.0512427002   0.0236504253
## [111,]   0.0050346399  -0.046444717   0.005497693   0.0284819503  -0.0869796975
## [112,]  -0.0105163959   0.025146826   0.031254178  -0.0794026914  -0.0498954363
## [113,]   0.0517384149  -0.079684128   0.044383339   0.0012490621  -0.0695079136
## [114,]   0.0864248913   0.006830760  -0.088083639  -0.0650434766  -0.0856180420
## [115,]   0.0812565990   0.100420954  -0.004642045  -0.0460160661  -0.0180679767
## [116,]  -0.0691959189  -0.086513802  -0.028660601   0.0912984470   0.1015803494
## [117,]   0.0955057468   0.069322496  -0.003253444  -0.0893565356   0.0010546789
## [118,]   0.0976060931   0.027396729   0.080729153   0.0586012854  -0.1845892988
## [119,]   0.0509003205  -0.021975082  -0.094791785   0.0505210450   0.0845193170
## [120,]   0.0358618776   0.173426030   0.146306014   0.1196601393   0.0636623056
## [121,]   0.0076075337  -0.151152196  -0.011434526  -0.0537940383   0.0013397801
## [122,]  -0.1878290054   0.026462144   0.010685361  -0.0807008674  -0.1043428004
## [123,]  -0.0559363537   0.072720505   0.073744347  -0.0317710947  -0.0745868714
## [124,]  -0.0614924507   0.122981871  -0.035369690   0.0093876346   0.0619774307
## [125,]   0.0561931126   0.120075439   0.046767631   0.1209309138  -0.0232099858
## [126,]   0.0528576646   0.050019236   0.034410375   0.0309336489  -0.0169630991
## [127,]  -0.0347713045  -0.024995125  -0.008939950  -0.0144679039   0.0202520625
## [128,]  -0.1230840845   0.110742849   0.126039131   0.0363671051   0.0876581719
## [129,]  -0.0415849514  -0.065985016   0.012841882   0.0112130241  -0.0071158013
## [130,]  -0.0305379459  -0.071003678   0.041998907  -0.0115893159  -0.0276194522
## [131,]  -0.0534334264   0.062420025  -0.027072869  -0.0107009678   0.0095256639
## [132,]   0.0080019580   0.010814962  -0.031617768   0.0600282340  -0.0335940852
## [133,]   0.1469842420   0.007047092  -0.046293227   0.1821624461  -0.0189759218
## [134,]   0.0072339785   0.076257370   0.079867909  -0.0078080247   0.0233783995
## [135,]  -0.0074377523  -0.080478639  -0.105948180   0.0347666722   0.0471321276
## [136,]   0.0390531495  -0.075899524  -0.075158683   0.0493904768  -0.0206007014
## [137,]   0.0580085420  -0.095189618  -0.013236749  -0.0822636163  -0.0415637220
## [138,]   0.0115537616  -0.035147896  -0.039384245  -0.1249961669   0.0217909528
## [139,]   0.0152373011  -0.054690244  -0.046200857  -0.0260594537   0.0515983685
## [140,]   0.0842551653   0.108922691   0.014854402   0.1093657714   0.0231387164
## [141,]  -0.1282748806   0.104810600  -0.007418295   0.1021260933   0.0331209600
## [142,]   0.0040018976   0.033534505   0.009831531   0.0720854089   0.0493771172
## [143,]   0.0913507438   0.027748459  -0.014445041   0.0580641884   0.0591397949
## [144,]  -0.0562391008  -0.068293017   0.074503046   0.0046801213   0.0213280018
## [145,]   0.1350413853   0.015454369   0.077675197   0.0608253226  -0.0241142355
## [146,]   0.1276767442  -0.131303683   0.050849465  -0.0893360860   0.0210165450
## [147,]  -0.0413467524   0.103302394   0.100546142   0.0106567446  -0.0254247726
## [148,]  -0.0445989013   0.069622850  -0.010437182   0.0973372104  -0.1524655197
## [149,]   0.0272343409   0.009732828  -0.034503985   0.0530911780  -0.0306218098
```

```
## [150,]  -0.0271465202  -0.021308345   0.128187115   0.0159000310   0.0655459868
## [151,]  -0.0700782458   0.009443588  -0.041357375  -0.0696636209  -0.0947116000
## [152,]  -0.0344529016   0.023826795   0.150111565  -0.0196068662  -0.0802557061
## [153,]   0.0268136085  -0.061342678   0.054772239   0.0849508523  -0.0272704496
## [154,]   0.0055900740  -0.122821588  -0.065535353  -0.0275364583   0.0132685065
## [155,]   0.0205071741  -0.057117679   0.063716991   0.0017346882  -0.0349870248
## [156,]  -0.0698100905  -0.012456007  -0.098196668  -0.0309655903   0.0502614071
## [157,]   0.0551837226   0.063560063   0.055575274  -0.0613955137  -0.0297878870
## [158,]  -0.0335079943   0.071610765  -0.144651191  -0.0529882218   0.1016363442
## [159,]  -0.0356112455  -0.013496390   0.033068855   0.0798608421   0.1471663846
## [160,]  -0.0820903562  -0.059475864  -0.125447344   0.0781570575  -0.0192256068
## [161,]   0.0417271582   0.016165879  -0.070726393   0.0105220271   0.0346279330
## [162,]  -0.0037496297   0.027077151  -0.138444202   0.1007146281   0.0749163778
## [163,]   0.0857861732   0.044682280  -0.080538716  -0.0088164094   0.0487643939
## [164,]  -0.0357274525  -0.056172771   0.027150712  -0.0571126113   0.0547437093
## [165,]  -0.0810728261  -0.092732544   0.025758214   0.1127614536  -0.0557044258
## [166,]   0.1457842856  -0.048940429   0.074834656   0.0146048797  -0.0196454312
## [167,]  -0.0867225578   0.031933719   0.005374582  -0.0511626691   0.0271086557
## [168,]  -0.1767417716  -0.059485687  -0.107441034   0.0378495671  -0.0033071072
## [169,]  -0.0128833598   0.064630696  -0.069083755  -0.1088521988  -0.0037579957
## [170,]   0.1326938739  -0.012235209   0.001817326  -0.0957781596   0.2733346793
## [171,]   0.0448192695  -0.015324158   0.016498117   0.0661616573  -0.1401279533
## [172,]   0.0972235025  -0.062753308  -0.097179669  -0.0339897748   0.1353072907
## [173,]   0.0757574728  -0.012390164  -0.093339755   0.0950041034  -0.0784909942
## [174,]   0.0818606158  -0.073993859  -0.068830038   0.1186690788  -0.0290977244
## [175,]   0.0817966457   0.165094230   0.047841016  -0.1536174624   0.0398143382
## [176,]   0.1350413853   0.015454369   0.077675197   0.0608253226  -0.0241142355
## [177,]  -0.0220761019  -0.045624503  -0.017435822  -0.0115569582  -0.0682532533
## [178,]   0.1129624822   0.076020885   0.018644962   0.0136448351   0.0366348489
## [179,]  -0.0091529318  -0.062819356   0.032388122   0.0063196623  -0.0816302426
## [180,]  -0.0059153994  -0.086714336   0.035485408   0.0351911200  -0.0303593781
## [181,]   0.0231721914  -0.037020791  -0.085385356  -0.0273805992   0.0161376271
## [182,]  -0.0276879030  -0.016176266  -0.016780659   0.0496726991  -0.0159917703
## [183,]   0.0090682674   0.004031049   0.073959964  -0.1453194631   0.0125816377
## [184,]  -0.0696567786  -0.102305151  -0.091653435  -0.0533824364  -0.0238911741
## [185,]   0.0445586706   0.006940697   0.054154183   0.0098871151  -0.0904340676
## [186,]  -0.0102246311   0.038855268  -0.038883246  -0.0260092111  -0.0431344042
## [187,]  -0.0336439552  -0.064730855   0.052030272  -0.0081571499  -0.0510565889
## [188,]   0.0415841384   0.057631661   0.035662373   0.0252853934   0.0147812946
## [189,]   0.0147729198   0.001344980   0.011362370   0.0798294167  -0.0034078551
## [190,]  -0.0333864395   0.048233276  -0.001328534  -0.0068227844  -0.0122444121
## [191,]   0.0879411039  -0.002711639  -0.069808976   0.0379852033  -0.0485193682
## [192,]  -0.0696551910  -0.017430368  -0.034293181   0.0669667841  -0.1437166241
## [193,]   0.0170734165  -0.104906910   0.035204711  -0.0202431647  -0.1092444856
## [194,]  -0.0048978233  -0.045176282   0.021685057   0.0633849722   0.0019372919
## [195,]   0.0302542986   0.015030189  -0.096998307  -0.0287610991  -0.0498683086
## [196,]   0.0202610799  -0.125951292  -0.037649951   0.0119468201  -0.0475671004
## [197,]   0.0439107130  -0.069973619   0.102913233  -0.1141525794  -0.0074090836
## [198,]  -0.0736768312   0.099206093  -0.043661768  -0.0226431118  -0.0078563408
## [199,]  -0.0207067369   0.055909150   0.120462803   0.0562389257   0.0388606347
## [200,]  -0.0427410699  -0.123933918   0.109036142   0.0755585513   0.1276833334
## [201,]   0.0453787276   0.026516927  -0.007507902   0.0307827843  -0.0625728692
## [202,]  -0.0689535809  -0.058353520   0.004086871  -0.1276102547  -0.0275955265
## [203,]   0.1124174645  -0.032315430  -0.008367668   0.0006736656   0.1583143232
```

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## [204,]   0.0152373011 -0.054690244 -0.046200857 -0.0260594537  0.0515983685
## [205,]  -0.0447892249  0.018459113 -0.019799498 -0.0238397278 -0.0861732457
## [206,]   0.0492604500  0.007173904 -0.043124490 -0.0877386802 -0.0642331226
## [207,]   0.0778207031 -0.091871407 -0.133981948  0.0199110477  0.0659287386
## [208,]  -0.0349963021 -0.045036899  0.004861672  0.0691876452  0.0435245458
## [209,]  -0.1708181285 -0.139134115  0.015832631 -0.0809433008  0.0249355794
## [210,]   0.0817239236 -0.057567780  0.004369319  0.0838127878  0.1612160255
## [211,]  -0.0009534508  0.041666489  0.104482679 -0.0048725555  0.1263652616
## [212,]   0.1419239489 -0.041907897 -0.062801021 -0.0296514779 -0.0511548402
## [213,]   0.0084829714  0.036396360  0.036972738 -0.1629607858  0.0415291787
## [214,]  -0.0353731486 -0.003498192  0.054041667  0.1382450846 -0.0076953271
## [215,]  -0.0102246311  0.038855268 -0.038883246 -0.0260092111 -0.0431344042
##                 [,46]        [,47]        [,48]        [,49]        [,50]
##    [1,]   0.0155512581  0.0247418395 -0.0553685918  0.030264003 -0.1386981267
##    [2,]   0.0595991221  0.0258903925 -0.0888805889 -0.022498366  0.0974057347
##    [3,]  -0.0714563179 -0.0240773498  0.0118287799  0.117390065 -0.0185441537
##    [4,]   0.0610391711  0.1452588050 -0.0076242541  0.097050009 -0.0396569053
##    [5,]   0.0576834001 -0.0586556448 -0.0384951940  0.052133259  0.0431633851
##    [6,]   0.0476617954  0.1618119337  0.0460318408 -0.075868048  0.0022406625
##    [7,]   0.0852189431  0.0682725750  0.0766388336 -0.058918719 -0.0206861175
##    [8,]  -0.1479082141  0.0052480291  0.1279096887 -0.001096347 -0.0978859805
##    [9,]  -0.0127331797 -0.0866664271 -0.3092500918  0.046873505  0.0128171342
##   [10,]  -0.1471142318  0.0445731663  0.2060693569  0.314959503  0.0183045763
##   [11,]  -0.1097332556 -0.0898122329 -0.1588262125  0.067753843 -0.0212666154
##   [12,]  -0.0082679881  0.0380917846  0.0159680935  0.037373793  0.0213714246
##   [13,]   0.1050717589  0.0395580068 -0.0361954878 -0.026449807  0.0406721005
##   [14,]  -0.0700451659  0.0664752196  0.0864215274 -0.089776039  0.0095292679
##   [15,]  -0.0234334841  0.0075703012 -0.0154028057  0.018492193  0.0396747082
##   [16,]   0.0116234739 -0.0015221200 -0.0809191559 -0.023998507 -0.0525802476
##   [17,]  -0.0238894573 -0.0689144307 -0.0777998522 -0.032647224  0.0897226979
##   [18,]   0.0123957544  0.0946884290  0.0035283580  0.089549627 -0.0055517764
##   [19,]  -0.0147821513 -0.0807290949 -0.0396997857 -0.010250340 -0.0225485391
##   [20,]  -0.1735625043  0.0559145820 -0.0243203816 -0.039677869 -0.0868051934
##   [21,]  -0.0530061346 -0.1462036464  0.1734643244 -0.025023839  0.0360501106
##   [22,]   0.0378855184 -0.0021197154  0.0136776879  0.030185702 -0.1010617251
##   [23,]  -0.0006850160 -0.0519962029 -0.0004709154 -0.046658536 -0.0430061872
##   [24,]  -0.0532758848  0.0644724225  0.0227155731  0.014718110  0.0870863662
##   [25,]  -0.0235941934  0.0554858981 -0.0207193986 -0.045310967 -0.0467116516
##   [26,]  -0.1245993722  0.0618039271  0.0666943448 -0.138678398 -0.0187084944
##   [27,]   0.1670505634  0.0894698979 -0.0628717825 -0.017833508 -0.0530124819
##   [28,]  -0.2032342843 -0.0777104032 -0.1113147326  0.011227186  0.0567923512
##   [29,]  -0.2032342843 -0.0777104032 -0.1113147326  0.011227186  0.0567923512
##   [30,]  -0.0226649237  0.0084047160  0.0156508994  0.055878077  0.1202033041
##   [31,]  -0.0825094483  0.1174788646  0.0230239136 -0.091314638 -0.0197300062
##   [32,]   0.1517215136  0.0326148558  0.0584818726 -0.056211323  0.0037352169
##   [33,]  -0.0330989597  0.0643168896  0.0367032227 -0.012556943  0.0506746335
##   [34,]   0.0679462099 -0.0951586895 -0.2018148118 -0.026696693 -0.0329076781
##   [35,]  -0.0286575632  0.3251003606  0.0192231261 -0.013890388 -0.0222886217
##   [36,]   0.0024345333 -0.0115068492 -0.0160235454  0.084876805 -0.0625976990
##   [37,]  -0.0026628437  0.0490210952 -0.0468036647  0.067837579  0.1002171834
##   [38,]   0.0383527655 -0.0719805032 -0.0039195279 -0.071599221 -0.0091054506
##   [39,]  -0.0092707700 -0.0040376362  0.0056673355  0.035348345  0.0759730023
##   [40,]  -0.0257239772 -0.1061233347 -0.0414110197  0.039434362 -0.0856378625
##   [41,]  -0.0060684194  0.1077152297  0.0733029529  0.206377464 -0.0483347380
```

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## [42,]  0.0478861428 -0.0112947524  0.1729126719  0.018211175  0.0678872875
## [43,]  0.1183263819 -0.0303740344  0.0773578268 -0.057886275  0.0045061106
## [44,] -0.0045410040 -0.0391631500  0.0009524127 -0.027208495  0.0172280630
## [45,] -0.0293886739 -0.0844482110 -0.0427038959  0.015421646  0.0132065546
## [46,]  0.1717992978 -0.1256639465  0.0429270843  0.012856072 -0.0035636712
## [47,]  0.0388694982  0.0356751306 -0.1329120434 -0.028686205  0.0079908712
## [48,] -0.0082679881  0.0380917846  0.0159680935  0.037373793  0.0213714246
## [49,] -0.0288304112 -0.0539336884  0.0961531940 -0.030748247 -0.0895928941
## [50,] -0.0450016270 -0.0195055278 -0.0277157504  0.048296128  0.1035718880
## [51,] -0.0234334841  0.0075703012 -0.0154028057  0.018492193  0.0396747082
## [52,]  0.0260201267  0.0411435893 -0.0227207993 -0.049469471  0.0518608042
## [53,]  0.0395993735 -0.0110578610  0.0299997514  0.034032831 -0.0249890186
## [54,]  0.0116234739 -0.0015221200 -0.0809191559 -0.023998507 -0.0525802476
## [55,] -0.0367126087  0.0182918521 -0.0636231520  0.062224405 -0.0066948251
## [56,]  0.0434468153  0.1341331796 -0.0338674458 -0.029736943  0.0073871054
## [57,] -0.0977404214 -0.0294321793  0.0262050023 -0.028454275  0.1273725922
## [58,] -0.0553617608 -0.0690219709 -0.0457412810 -0.053873551  0.0931917730
## [59,]  0.0611566538  0.0303156405 -0.0248431611  0.045168039  0.0336494523
## [60,] -0.0288812503 -0.1206739145 -0.0195267802  0.039564102 -0.1679588214
## [61,]  0.0599837231  0.0333315677 -0.0334646354 -0.118032405  0.0379999542
## [62,]  0.0599837231  0.0333315677 -0.0334646354 -0.118032405  0.0379999542
## [63,]  0.0131155265 -0.0894059834  0.0428818060  0.069551844  0.0356032232
## [64,] -0.0212775369  0.1130105122  0.0439077754  0.005390500  0.0043372364
## [65,]  0.1224651290  0.0098067744 -0.0046565295  0.037703538 -0.1185804905
## [66,]  0.0901905483 -0.0389787490 -0.0364261979 -0.062191505  0.1211443139
## [67,]  0.0048724743 -0.1143881832  0.0734700790  0.025340937  0.0528955316
## [68,]  0.0095182844  0.2026920032 -0.0354692227 -0.008417441  0.0137928011
## [69,] -0.0113856441  0.0097934915  0.0851307254 -0.174577025 -0.1815829881
## [70,]  0.0413372294  0.1018583008  0.0309334224 -0.020361661 -0.0191033510
## [71,] -0.1591417908 -0.0077918705  0.0365470411 -0.016748972  0.0147206362
## [72,]  0.0303654346 -0.0548994659  0.1079914586  0.058426678 -0.0049507312
## [73,] -0.0589459681  0.0757013883 -0.0721143721  0.073248080  0.0346619697
## [74,]  0.0736115271  0.0807261005  0.0002060204 -0.117449940  0.1609051416
## [75,]  0.0251066767 -0.0217063844  0.0081887937 -0.030478534  0.0164189602
## [76,]  0.0241555665 -0.0300188615  0.0120429791  0.050210926 -0.0035784559
## [77,]  0.0371103995 -0.0857719650  0.0264882036  0.070357957  0.0704446351
## [78,] -0.0576949611 -0.0065764034  0.0299364843 -0.030409746 -0.0992583161
## [79,] -0.0336992717  0.1020482545 -0.0440997747  0.024661481 -0.0793864000
## [80,]  0.0678321028  0.0431207261 -0.0245353141  0.025829239 -0.0125173314
## [81,]  0.0308199674 -0.0541633514  0.0825907974 -0.112944522  0.1337934600
## [82,] -0.0387911860 -0.0731747151  0.0061517295 -0.024881089 -0.0436263591
## [83,] -0.0023822291 -0.0957117079  0.0873448679 -0.047636307  0.0270779736
## [84,] -0.0655472054  0.0300155590 -0.0104719537 -0.041718262 -0.1331237364
## [85,] -0.1049702799  0.0401816905 -0.0003241075  0.115796360  0.0778747459
## [86,]  0.0391647855 -0.0546634594  0.0024315460  0.037821274  0.0310400791
## [87,] -0.0074291064  0.0483233848 -0.0046288535 -0.019667454 -0.0521838890
## [88,]  0.0038399359 -0.0333620256 -0.0895616165  0.042728603 -0.0679636374
## [89,]  0.0106013156  0.0161922884  0.0116977367 -0.002717699 -0.0511010961
## [90,]  0.0813998704 -0.0681923436  0.0080989631  0.038619566  0.0925208162
## [91,] -0.0467809718 -0.0190342811 -0.0129689456 -0.038336643  0.0092107146
## [92,]  0.0581076580  0.0255319054  0.0099337031 -0.006712339  0.0007291072
## [93,] -0.0642084456 -0.0428472483 -0.1405573942  0.191472175 -0.0223046308
## [94,]  0.0441942491 -0.0269082475 -0.1036452254  0.019678883  0.0180388730
## [95,] -0.0336117136 -0.0230406025  0.0030168986  0.017470643 -0.1062219204
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## [96,]   -0.0039776885  -0.0034989583  -0.0409127621  -0.071610994   0.0304784384
## [97,]   -0.0827688755  -0.1273044720  -0.0069028041  -0.022295582  -0.0045927102
## [98,]    0.1458877067  -0.0850827824  -0.0401898195  -0.039692886  -0.0717796898
## [99,]    0.0313472171   0.0055169437  -0.0024693856  -0.013054359  -0.0506933930
## [100,]   0.0570979603  -0.1003141158  -0.0863982361   0.016822805  -0.0134991485
## [101,]  -0.0510510851  -0.0577897733   0.0415535921  -0.080898534  -0.1830303171
## [102,]   0.0466592152  -0.0229087856  -0.0140049979   0.066949749   0.0045069022
## [103,]  -0.0041550200   0.0100963723   0.0928054571   0.040551567   0.0243729203
## [104,]   0.0668790147   0.0083547262  -0.0116477105  -0.036912907  -0.0587875627
## [105,]   0.0813675582   0.0534835130  -0.1039109791   0.053489029  -0.0053909488
## [106,]  -0.0821936321  -0.0172882964  -0.1148544945   0.045282781   0.1747529006
## [107,]  -0.0591446157  -0.0125924789  -0.0351934541   0.027374311  -0.0074692459
## [108,]   0.0886828581   0.0043626235   0.0278280882  -0.098990621  -0.0491556004
## [109,]   0.0322255995  -0.0905035298   0.1098492672   0.013957014  -0.0493208767
## [110,]   0.0024345333  -0.0115068492  -0.0160235454   0.084876805  -0.0625976990
## [111,]   0.0166643578   0.0633983350   0.0224200117   0.132415683  -0.0516409583
## [112,]  -0.0218696572   0.0251502700   0.0827570269  -0.093839963  -0.0586041477
## [113,]   0.0034302725   0.0231103721   0.0562738353   0.005540982  -0.0249506249
## [114,]  -0.0553975838   0.0339785481   0.0158119986   0.071892962  -0.1569596948
## [115,]  -0.0143528992  -0.0480028558   0.0964875338  -0.040808513  -0.0350755416
## [116,]  -0.0026628437   0.0490210952  -0.0468036647   0.067837579   0.1002171834
## [117,]   0.0383527655  -0.0719805032  -0.0039195279  -0.071599221  -0.0091054506
## [118,]   0.0654643838   0.0482207129  -0.0129218024   0.006276288   0.0579684636
## [119,]   0.0085422304   0.0342824962  -0.0356726118  -0.149948808   0.0495853289
## [120,]  -0.0741473807  -0.0701133673  -0.0795300616   0.055916427   0.0402197883
## [121,]   0.0964974238  -0.0628479962  -0.0104537423   0.112288563   0.0078719702
## [122,]  -0.0658965841   0.1121427201   0.0602949362   0.024025982  -0.1285153813
## [123,]  -0.0257239772  -0.1061233347  -0.0414110197   0.039434362  -0.0856378625
## [124,]  -0.0575057285  -0.0053164064  -0.0353496313  -0.005672295  -0.1387248499
## [125,]   0.0122733304   0.0358219989   0.0401964140   0.152167843   0.0350054440
## [126,]  -0.1668999712   0.0568222879  -0.0673694488  -0.007271779   0.0612896579
## [127,]  -0.0960467825  -0.0157602780  -0.0361323309  -0.099343629  -0.0442929173
## [128,]  -0.0022068807   0.0003841481   0.1078593401   0.034643627  -0.0525081408
## [129,]   0.0219642713  -0.0625213162   0.0666031224  -0.041932609   0.0828757955
## [130,]   0.1006347344  -0.0192108097  -0.0817085068   0.113700364  -0.0119233047
## [131,]   0.0528771211  -0.0308169049  -0.0006887674   0.129503453   0.0584451748
## [132,]  -0.0584053962  -0.0627260453   0.0749663113  -0.049665317   0.0429472768
## [133,]   0.0002146925   0.0586448202   0.1010414555  -0.056805916   0.0451143458
## [134,]   0.0054488334   0.0974175615  -0.0232330920  -0.017991034  -0.0123310242
## [135,]  -0.0553617608  -0.0690219709  -0.0457412810  -0.053873551   0.0931917730
## [136,]   0.0251066767  -0.0217063844   0.0081887937  -0.030478534   0.0164189602
## [137,]   0.1218053776  -0.0728984595   0.0946657417   0.026367789   0.0850925122
## [138,]  -0.1245993722   0.0618039271   0.0666943448  -0.138678398  -0.0187084944
## [139,]   0.0265704079   0.0162412892  -0.0176077131   0.011204525   0.0194158984
## [140,]   0.0845090435  -0.2453235857   0.1848646505   0.029631312   0.1156101073
## [141,]  -0.0876528158  -0.1035601408  -0.0661779018  -0.046789310  -0.0671853142
## [142,]  -0.0092707700  -0.0040376362   0.0056673355   0.035348345   0.0759730023
## [143,]  -0.0239690776   0.0381759602   0.0409518849  -0.074990322   0.0490673982
## [144,]  -0.0162114906   0.0126964491  -0.0612773464  -0.108196657  -0.0431592503
## [145,]  -0.0397046985  -0.0070449782  -0.0344418516   0.033440588   0.0609954392
## [146,]   0.0353859975   0.0516443158  -0.0587021264   0.039557376   0.0416455080
## [147,]  -0.0487285835  -0.0144176362   0.0122308953  -0.112882146   0.0121233754
## [148,]   0.0267466083  -0.0455557699   0.0496164197   0.099924880  -0.0737541130
## [149,]   0.0278988400   0.1222032678  -0.0487435103  -0.005390066   0.0164226520
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## [150,]  -0.0212775369   0.1130105122   0.0439077754   0.005390500   0.0043372364
## [151,]   0.0596026042   0.0422714541   0.0297284389  -0.068929771   0.0220323680
## [152,]  -0.0235606826   0.0892529415   0.0403264751  -0.073009558   0.0303502093
## [153,]  -0.0617420816  -0.0155925062   0.0552218343  -0.103043422  -0.0217287965
## [154,]   0.0861805172  -0.0062447184   0.0123917438  -0.023253302   0.0417846992
## [155,]   0.0101219811  -0.0332979191   0.0615768682   0.113736555  -0.0734532259
## [156,]  -0.0384960958  -0.0226895257   0.0155315132   0.034713393   0.0646236827
## [157,]   0.0714534935   0.0295947370   0.0344314412  -0.015122772  -0.0008088108
## [158,]  -0.0479451104  -0.0043857829  -0.1082540768  -0.108557031  -0.0945223312
## [159,]   0.0460554296  -0.0180621800   0.0842619683  -0.028020316  -0.0269043541
## [160,]   0.0049726077  -0.0376083151  -0.0132552392  -0.074143282   0.0195445276
## [161,]   0.0010410961   0.0983694017  -0.0025638404   0.002160684  -0.0082330185
## [162,]   0.0596467726   0.0836932449   0.0718217953   0.070616187   0.0864855115
## [163,]  -0.1418484325   0.0806214707   0.0272951210  -0.043291207   0.1115767850
## [164,]   0.1034368876  -0.0028812985   0.0740195637   0.003369418  -0.0531202930
## [165,]  -0.0387254104   0.0649226861  -0.1380301765  -0.043892958  -0.0878301015
## [166,]  -0.0005885993  -0.0053377196   0.0373557760  -0.076423334   0.0254325153
## [167,]   0.0172739772   0.1265867678   0.0082134243   0.104344266  -0.0967936074
## [168,]   0.0197914245   0.0138154056   0.1111945924   0.059859770  -0.0156559751
## [169,]  -0.0539866412  -0.0020167626  -0.0355854827  -0.052739838   0.1084427597
## [170,]  -0.0200406736  -0.0252560519  -0.1492517735   0.002737370  -0.0367932899
## [171,]  -0.0358093827   0.0776127130  -0.0745575197   0.022661239  -0.0259142990
## [172,]   0.0179442924   0.0285176736  -0.0480850228   0.053852440  -0.0433349815
## [173,]   0.0263302630   0.0560444974   0.0114900217  -0.012391539  -0.0405252246
## [174,]  -0.0857412522  -0.0236277364  -0.0750736878  -0.080958401   0.0701334210
## [175,]   0.2956009149  -0.0490038872  -0.1341059695  -0.089901074  -0.1565275445
## [176,]  -0.0397046985  -0.0070449782  -0.0344418516   0.033440588   0.0609954392
## [177,]   0.0312616246   0.0165695855  -0.0848548447  -0.098363488  -0.0780666151
## [178,]  -0.0439631391   0.0557071359   0.0536437868   0.166704573  -0.0036465414
## [179,]   0.0774809464   0.0392547265  -0.0346701336   0.044306041   0.0525609628
## [180,]   0.0391647855  -0.0546634594   0.0024315460   0.037821274   0.0310400791
## [181,]   0.0106013156   0.0161922884   0.0116977367  -0.002717699  -0.0511010961
## [182,]   0.0459848716   0.0591138530   0.1036993118   0.148449823   0.0176942948
## [183,]   0.0084826729  -0.0325724238   0.0336710620   0.045570724   0.0038916342
## [184,]   0.0426546790  -0.0367358681  -0.0278626207   0.024067090   0.0124685505
## [185,]   0.0071875383  -0.0204490338   0.0024632136  -0.022734955   0.0278426513
## [186,]  -0.0054309427  -0.0013758292   0.0437294269  -0.055495404  -0.0235095368
## [187,]  -0.0258839321   0.1193603488  -0.0313731401  -0.090094679   0.0815086590
## [188,]   0.1050717589   0.0395580068  -0.0361954878  -0.026449807   0.0406721005
## [189,]   0.0144589067   0.0657687728  -0.0103373386   0.089644603  -0.0132889942
## [190,]  -0.0238894573  -0.0689144307  -0.0777998522  -0.032647224   0.0897226979
## [191,]   0.0126674332  -0.0380054575  -0.0569211423   0.012788144  -0.1840391345
## [192,]   0.0611566538   0.0303156405  -0.0248431611   0.045168039   0.0336494523
## [193,]  -0.0463545163  -0.1178254658   0.0445712916   0.022177626   0.0268907796
## [194,]  -0.0500431272  -0.0546812976  -0.0164482440   0.054388747  -0.0786032259
## [195,]  -0.1049931207  -0.0696948330   0.0377998199   0.012232470  -0.0938100144
## [196,]  -0.0438410317  -0.0988863130   0.1179890835   0.001827949  -0.0732928538
## [197,]  -0.0478748125   0.0502749108   0.0050374417   0.069116318   0.0161345919
## [198,]  -0.0450097555  -0.0899744212   0.0516776083  -0.027003273   0.0218098435
## [199,]  -0.0832371087  -0.0802274069   0.0122067244  -0.060835057  -0.0476177421
## [200,]   0.0844815152  -0.0194625650   0.0093645021  -0.013045418  -0.0380676872
## [201,]   0.0276463792  -0.0458765296   0.0636158542  -0.147489242   0.0649239300
## [202,]  -0.0126898076   0.0401011283   0.0805483147  -0.051468976   0.1130601216
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## [204,]  0.0265704079  0.0162412892 -0.0176077131  0.011204525  0.0194158984
## [205,] -0.0624212813 -0.0578617681 -0.0587778099 -0.015419504  0.0436872776
## [206,] -0.0189702642 -0.0554091499  0.1331814814 -0.062172520 -0.0569703449
## [207,] -0.0043866286 -0.0157107340  0.0317277037  0.057467065 -0.1371394572
## [208,]  0.0623335700 -0.0655731715 -0.0381550268 -0.015758275 -0.1275329922
## [209,]  0.0984670146 -0.0216526262  0.0448437485  0.016653450  0.1232970344
## [210,] -0.0713798693  0.0779260193  0.0188973805 -0.102025641  0.0120217251
## [211,] -0.1130506310  0.0318992518 -0.0335141385 -0.013517617  0.0505239555
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## [213,]  0.1375647295  0.0382227619 -0.0485939205  0.004251251  0.1204276796
## [214,] -0.0307481373  0.0269402428 -0.1475301650  0.012096675  0.0935680436
## [215,] -0.0054309427 -0.0013758292  0.0437294269 -0.055495404 -0.0235095368
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