Testing average cycles for attraction strength 1.8  
Number of cycles run: 1143  
Number of cycles run: 799  
Number of cycles run: 1269  
Number of cycles run: 932  
Number of cycles run: 1598  
Number of cycles run: 1387  
Number of cycles run: 1010  
Number of cycles run: 830  
Number of cycles run: 1091  
Number of cycles run: 1714  
Number of cycles run: 1160  
Number of cycles run: 36151  
Number of cycles run: 978  
Number of cycles run: 860  
Number of cycles run: 2183  
Number of cycles run: 2466  
Number of cycles run: 945  
Number of cycles run: 2165  
Number of cycles run: 1348  
Number of cycles run: 728  
Number of cycles run: 957  
Number of cycles run: 3135  
Number of cycles run: 2430  
Number of cycles run: 960  
Number of cycles run: 1568  
Number of cycles run: 1636  
Number of cycles run: 4869  
Number of cycles run: 1301  
Number of cycles run: 1221  
Number of cycles run: 950  
Number of cycles run: 788  
Number of cycles run: 832  
Number of cycles run: 5056  
Number of cycles run: 1036  
Number of cycles run: 865  
Number of cycles run: 2675  
Number of cycles run: 969  
Number of cycles run: 5459  
Number of cycles run: 1906  
Number of cycles run: 905  
Number of cycles run: 882  
Number of cycles run: 742  
Number of cycles run: 1604  
Number of cycles run: 7647  
Number of cycles run: 1903  
Number of cycles run: 4031  
Number of cycles run: 1585  
Number of cycles run: 7757  
Number of cycles run: 1342  
Number of cycles run: 2144  
Av cycles for attraction strength 1.8 is 2598  
standard diviation is 5108.574634706569  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 1417  
Number of cycles run: 807  
Number of cycles run: 1193  
Number of cycles run: 2214  
Number of cycles run: 3137  
Number of cycles run: 2099  
Number of cycles run: 865  
Number of cycles run: 824  
Number of cycles run: 898  
Number of cycles run: 2760  
Number of cycles run: 1027  
Number of cycles run: 927  
Number of cycles run: 900  
Number of cycles run: 1343  
Number of cycles run: 1836  
Number of cycles run: 1111  
Number of cycles run: 876  
Number of cycles run: 977  
Number of cycles run: 963  
Number of cycles run: 1811  
Number of cycles run: 825  
Number of cycles run: 3291  
Number of cycles run: 1181  
Number of cycles run: 5949  
Number of cycles run: 1797  
Number of cycles run: 795  
Number of cycles run: 3315  
Number of cycles run: 989  
Number of cycles run: 1945  
Number of cycles run: 21817  
Number of cycles run: 3917  
Number of cycles run: 5869  
Number of cycles run: 1003  
Number of cycles run: 1624  
Number of cycles run: 3554  
Number of cycles run: 739  
Number of cycles run: 805  
Number of cycles run: 714  
Number of cycles run: 829  
Number of cycles run: 894  
Number of cycles run: 956  
Number of cycles run: 767  
Number of cycles run: 1269  
Number of cycles run: 1830  
Number of cycles run: 1346  
Number of cycles run: 1742  
Number of cycles run: 12930  
Number of cycles run: 800  
Number of cycles run: 2513  
Number of cycles run: 839  
Av cycles for attraction strength 1.8 is 2296  
standard diviation is 3451.483502933254  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 909  
Number of cycles run: 2068  
Number of cycles run: 900  
Number of cycles run: 724  
Number of cycles run: 961  
Number of cycles run: 5027  
Number of cycles run: 965  
Number of cycles run: 820  
Number of cycles run: 13000  
Number of cycles run: 739  
Number of cycles run: 43296  
Number of cycles run: 788  
Number of cycles run: 1378  
Number of cycles run: 2994  
Number of cycles run: 3464  
Number of cycles run: 1819  
Number of cycles run: 949  
Number of cycles run: 1099  
Number of cycles run: 831  
Number of cycles run: 1162  
Number of cycles run: 1225  
Number of cycles run: 4726  
Number of cycles run: 1527  
Number of cycles run: 1792  
Number of cycles run: 1071  
Number of cycles run: 833  
Number of cycles run: 759  
Number of cycles run: 1449  
Number of cycles run: 772  
Number of cycles run: 2459  
Number of cycles run: 2127  
Number of cycles run: 1471  
Number of cycles run: 1568  
Number of cycles run: 1105  
Number of cycles run: 784  
Number of cycles run: 783  
Number of cycles run: 1788  
Number of cycles run: 2074  
Number of cycles run: 1482  
Number of cycles run: 836  
Number of cycles run: 6361  
Number of cycles run: 953  
Number of cycles run: 847  
Number of cycles run: 1516  
Number of cycles run: 2274  
Number of cycles run: 765  
Number of cycles run: 733  
Number of cycles run: 707  
Number of cycles run: 1675  
Number of cycles run: 790  
Av cycles for attraction strength 1.8 is 2622  
standard diviation is 6198.126666458938  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 1804  
Number of cycles run: 970  
Number of cycles run: 1659  
Number of cycles run: 2253  
Number of cycles run: 16414  
Number of cycles run: 1321  
Number of cycles run: 2675  
Number of cycles run: 1894  
Number of cycles run: 820  
Number of cycles run: 8465  
Number of cycles run: 3688  
Number of cycles run: 745  
Number of cycles run: 1490  
Number of cycles run: 777  
Number of cycles run: 2094  
Number of cycles run: 1199  
Number of cycles run: 3818  
Number of cycles run: 781  
Number of cycles run: 1114  
Number of cycles run: 1062  
Number of cycles run: 912  
Number of cycles run: 1406  
Number of cycles run: 2748  
Number of cycles run: 3337  
Number of cycles run: 870  
Number of cycles run: 1555  
Number of cycles run: 1243  
Number of cycles run: 1445  
Number of cycles run: 736  
Number of cycles run: 6102  
Number of cycles run: 1782  
Number of cycles run: 50000  
Number of cycles run: 666  
Number of cycles run: 808  
Number of cycles run: 735  
Number of cycles run: 827  
Number of cycles run: 1927  
Number of cycles run: 1322  
Number of cycles run: 10391  
Number of cycles run: 784  
Number of cycles run: 2366  
Number of cycles run: 892  
Number of cycles run: 777  
Number of cycles run: 2203  
Number of cycles run: 1421  
Number of cycles run: 2605  
Number of cycles run: 743  
Number of cycles run: 824  
Number of cycles run: 2572  
Number of cycles run: 2296  
Av cycles for attraction strength 1.8 is 3226  
standard diviation is 7291.898122364216  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 1862  
Number of cycles run: 1349  
Number of cycles run: 971  
Number of cycles run: 2259  
Number of cycles run: 900  
Number of cycles run: 1843  
Number of cycles run: 816  
Number of cycles run: 1595  
Number of cycles run: 5187  
Number of cycles run: 698  
Number of cycles run: 711  
Number of cycles run: 906  
Number of cycles run: 1146  
Number of cycles run: 35890  
Number of cycles run: 1619  
Number of cycles run: 10365  
Number of cycles run: 2890  
Number of cycles run: 1029  
Number of cycles run: 753  
Number of cycles run: 4312  
Number of cycles run: 787  
Number of cycles run: 695  
Number of cycles run: 4340  
Number of cycles run: 888  
Number of cycles run: 1644  
Number of cycles run: 705  
Number of cycles run: 894  
Number of cycles run: 1079  
Number of cycles run: 2043  
Number of cycles run: 1483  
Number of cycles run: 1021  
Number of cycles run: 1943  
Number of cycles run: 3018  
Number of cycles run: 761  
Number of cycles run: 1552  
Number of cycles run: 848  
Number of cycles run: 945  
Number of cycles run: 754  
Number of cycles run: 5159  
Number of cycles run: 1029  
Number of cycles run: 793  
Number of cycles run: 8876  
Number of cycles run: 1186  
Number of cycles run: 2891  
Number of cycles run: 2383  
Number of cycles run: 1323  
Number of cycles run: 4839  
Number of cycles run: 888  
Number of cycles run: 4048  
Number of cycles run: 6045  
Av cycles for attraction strength 1.8 is 2839  
standard diviation is 5200.491433960244  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 936  
Number of cycles run: 1201  
Number of cycles run: 750  
Number of cycles run: 1422  
Number of cycles run: 868  
Number of cycles run: 1355  
Number of cycles run: 27725  
Number of cycles run: 922  
Number of cycles run: 50000  
Number of cycles run: 1907  
Number of cycles run: 1386  
Number of cycles run: 818  
Number of cycles run: 1708  
Number of cycles run: 3193  
Number of cycles run: 1128  
Number of cycles run: 18229  
Number of cycles run: 4794  
Number of cycles run: 946  
Number of cycles run: 1450  
Number of cycles run: 1151  
Number of cycles run: 754  
Number of cycles run: 1683  
Number of cycles run: 1637  
Number of cycles run: 747  
Number of cycles run: 1554  
Number of cycles run: 2452  
Number of cycles run: 13458  
Number of cycles run: 4242  
Number of cycles run: 8658  
Number of cycles run: 26676

Number of cycles run: 12588  
Number of cycles run: 881  
Number of cycles run: 1340  
Number of cycles run: 10523  
Number of cycles run: 1045  
Number of cycles run: 1430  
Number of cycles run: 1413  
Number of cycles run: 810  
Number of cycles run: 2412  
Number of cycles run: 2195  
Number of cycles run: 729  
Number of cycles run: 1170  
Number of cycles run: 2822  
Number of cycles run: 2458  
Number of cycles run: 833  
Number of cycles run: 1649  
Number of cycles run: 2409  
Number of cycles run: 2260  
Number of cycles run: 670  
Number of cycles run: 900  
Av cycles for attraction strength 1.8 is 4685  
standard diviation is 8898.346968271979  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 769  
Number of cycles run: 801  
Number of cycles run: 3321  
Number of cycles run: 892  
Number of cycles run: 904  
Number of cycles run: 1814  
Number of cycles run: 824  
Number of cycles run: 1502  
Number of cycles run: 5941  
Number of cycles run: 792  
Number of cycles run: 1668  
Number of cycles run: 5387  
Number of cycles run: 782  
Number of cycles run: 1497  
Number of cycles run: 984  
Number of cycles run: 919  
Number of cycles run: 1052  
Number of cycles run: 918  
Number of cycles run: 2030  
Number of cycles run: 757  
Number of cycles run: 1617  
Number of cycles run: 1419  
Number of cycles run: 986  
Number of cycles run: 2674  
Number of cycles run: 1616  
Number of cycles run: 8910  
Number of cycles run: 50000  
Number of cycles run: 1169  
Number of cycles run: 696  
Number of cycles run: 1889  
Number of cycles run: 1494  
Number of cycles run: 10808  
Number of cycles run: 1127  
Number of cycles run: 1167  
Number of cycles run: 1904  
Number of cycles run: 2224  
Number of cycles run: 1362  
Number of cycles run: 1393  
Number of cycles run: 2691  
Number of cycles run: 3973  
Number of cycles run: 2225  
Number of cycles run: 2271  
Number of cycles run: 2356  
Number of cycles run: 10056  
Number of cycles run: 831  
Number of cycles run: 1601  
Number of cycles run: 2304  
Number of cycles run: 796  
Number of cycles run: 2296  
Number of cycles run: 2096  
Av cycles for attraction strength 1.8 is 3190  
standard diviation is 7118.786838431139  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 902  
Number of cycles run: 19880  
Number of cycles run: 8624  
Number of cycles run: 1237  
Number of cycles run: 6982  
Number of cycles run: 12152  
Number of cycles run: 1493  
Number of cycles run: 982  
Number of cycles run: 1192  
Number of cycles run: 671  
Number of cycles run: 947  
Number of cycles run: 1581  
Number of cycles run: 894  
Number of cycles run: 1512  
Number of cycles run: 960  
Number of cycles run: 1876  
Number of cycles run: 804  
Number of cycles run: 2652  
Number of cycles run: 1323  
Number of cycles run: 744  
Number of cycles run: 26476  
Number of cycles run: 711  
Number of cycles run: 2163  
Number of cycles run: 734  
Number of cycles run: 742  
Number of cycles run: 763  
Number of cycles run: 763  
Number of cycles run: 3121  
Number of cycles run: 6567  
Number of cycles run: 1325  
Number of cycles run: 2812  
Number of cycles run: 2145  
Number of cycles run: 855  
Number of cycles run: 1546  
Number of cycles run: 1236  
Number of cycles run: 3247  
Number of cycles run: 792  
Number of cycles run: 2063  
Number of cycles run: 950  
Number of cycles run: 798  
Number of cycles run: 732  
Number of cycles run: 3013  
Number of cycles run: 3731  
Number of cycles run: 1011  
Number of cycles run: 1464  
Number of cycles run: 1249  
Number of cycles run: 753  
Number of cycles run: 2407  
Number of cycles run: 1296  
Number of cycles run: 1333  
Av cycles for attraction strength 1.8 is 2884  
standard diviation is 4767.346250380857  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 1663  
Number of cycles run: 6710  
Number of cycles run: 7027  
Number of cycles run: 919  
Number of cycles run: 696  
Number of cycles run: 3089  
Number of cycles run: 954  
Number of cycles run: 854  
Number of cycles run: 1439  
Number of cycles run: 2019  
Number of cycles run: 793  
Number of cycles run: 1105  
Number of cycles run: 1743  
Number of cycles run: 1926  
Number of cycles run: 918  
Number of cycles run: 1258  
Number of cycles run: 1171  
Number of cycles run: 1086  
Number of cycles run: 1597  
Number of cycles run: 1078  
Number of cycles run: 750  
Number of cycles run: 2874  
Number of cycles run: 1278  
Number of cycles run: 3288  
Number of cycles run: 735  
Number of cycles run: 1977  
Number of cycles run: 1159  
Number of cycles run: 1026  
Number of cycles run: 2045  
Number of cycles run: 5081  
Number of cycles run: 742  
Number of cycles run: 1949  
Number of cycles run: 1286  
Number of cycles run: 1511  
Number of cycles run: 1362  
Number of cycles run: 776  
Number of cycles run: 5454  
Number of cycles run: 647  
Number of cycles run: 20046  
Number of cycles run: 6431  
Number of cycles run: 763  
Number of cycles run: 888  
Number of cycles run: 2696  
Number of cycles run: 48715  
Number of cycles run: 829  
Number of cycles run: 1183  
Number of cycles run: 842  
Number of cycles run: 745  
Number of cycles run: 1570  
Number of cycles run: 1003  
Av cycles for attraction strength 1.8 is 3153  
standard diviation is 7237.34764483819  
Testing average cycles for attraction strength 1.8  
Number of cycles run: 1325  
Number of cycles run: 2225  
Number of cycles run: 1205  
Number of cycles run: 1283  
Number of cycles run: 1982  
Number of cycles run: 3023  
Number of cycles run: 731  
Number of cycles run: 5376  
Number of cycles run: 1342  
Number of cycles run: 829  
Number of cycles run: 2269  
Number of cycles run: 50000  
Number of cycles run: 1475  
Number of cycles run: 1060  
Number of cycles run: 1103  
Number of cycles run: 1075  
Number of cycles run: 6377  
Number of cycles run: 11952  
Number of cycles run: 830  
Number of cycles run: 785  
Number of cycles run: 1964  
Number of cycles run: 7994  
Number of cycles run: 1767  
Number of cycles run: 755  
Number of cycles run: 1437  
Number of cycles run: 934  
Number of cycles run: 1010  
Number of cycles run: 795  
Number of cycles run: 1877  
Number of cycles run: 1221  
Number of cycles run: 1272  
Number of cycles run: 2167  
Number of cycles run: 787  
Number of cycles run: 1263  
Number of cycles run: 1227  
Number of cycles run: 1114  
Number of cycles run: 957  
Number of cycles run: 1291  
Number of cycles run: 896  
Number of cycles run: 3225  
Number of cycles run: 1508  
Number of cycles run: 7884  
Number of cycles run: 773  
Number of cycles run: 905  
Number of cycles run: 765  
Number of cycles run: 731  
Number of cycles run: 842  
Number of cycles run: 813  
Number of cycles run: 795  
Number of cycles run: 1533  
Av cycles for attraction strength 1.8 is 2934  
standard diviation is 7138.811478539158