Testing average cycles for attraction strength 1.2  
Number of cycles run: 760  
Number of cycles run: 2377  
Number of cycles run: 1284  
Number of cycles run: 3226  
Number of cycles run: 5457  
Number of cycles run: 1347  
Number of cycles run: 1230  
Number of cycles run: 1378  
Number of cycles run: 4033  
Number of cycles run: 1074  
Number of cycles run: 7373  
Number of cycles run: 2284  
Number of cycles run: 7346  
Number of cycles run: 1239  
Number of cycles run: 933  
Number of cycles run: 20075  
Number of cycles run: 3705  
Number of cycles run: 36409  
Number of cycles run: 2375  
Number of cycles run: 2764  
Number of cycles run: 1969  
Number of cycles run: 1649  
Number of cycles run: 2657  
Number of cycles run: 4014  
Number of cycles run: 991  
Number of cycles run: 753  
Number of cycles run: 2707  
Number of cycles run: 24527  
Number of cycles run: 693  
Number of cycles run: 12942  
Number of cycles run: 1688  
Number of cycles run: 1689  
Number of cycles run: 930  
Number of cycles run: 1763  
Number of cycles run: 2870  
Number of cycles run: 3666  
Number of cycles run: 3162  
Number of cycles run: 894  
Number of cycles run: 5881  
Number of cycles run: 1073  
Number of cycles run: 730  
Number of cycles run: 1946  
Number of cycles run: 709  
Number of cycles run: 2621  
Number of cycles run: 1277  
Number of cycles run: 2254  
Number of cycles run: 2683  
Number of cycles run: 24872  
Number of cycles run: 50000  
Number of cycles run: 1063  
Av cycles for attraction strength 1.2 is 5426  
standard diviation is 9584.406856462432  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 967  
Number of cycles run: 2046  
Number of cycles run: 1965  
Number of cycles run: 2298  
Number of cycles run: 1402  
Number of cycles run: 799  
Number of cycles run: 2085  
Number of cycles run: 835  
Number of cycles run: 2831  
Number of cycles run: 2715  
Number of cycles run: 1901  
Number of cycles run: 2697  
Number of cycles run: 3871  
Number of cycles run: 1652  
Number of cycles run: 2280  
Number of cycles run: 2076  
Number of cycles run: 2142  
Number of cycles run: 14457  
Number of cycles run: 2228  
Number of cycles run: 1327  
Number of cycles run: 3217  
Number of cycles run: 1077  
Number of cycles run: 1623  
Number of cycles run: 2631  
Number of cycles run: 50000  
Number of cycles run: 2027  
Number of cycles run: 1557  
Number of cycles run: 1909  
Number of cycles run: 1080  
Number of cycles run: 1960  
Number of cycles run: 2463  
Number of cycles run: 5958  
Number of cycles run: 846  
Number of cycles run: 814  
Number of cycles run: 987  
Number of cycles run: 1836  
Number of cycles run: 6689  
Number of cycles run: 890  
Number of cycles run: 855  
Number of cycles run: 1546  
Number of cycles run: 2476  
Number of cycles run: 920  
Number of cycles run: 1477  
Number of cycles run: 1297  
Number of cycles run: 1687  
Number of cycles run: 7075  
Number of cycles run: 1135  
Number of cycles run: 50000  
Number of cycles run: 1197  
Number of cycles run: 779  
Av cycles for attraction strength 1.2 is 4211  
standard diviation is 9697.562895524477  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 858  
Number of cycles run: 1175  
Number of cycles run: 1765  
Number of cycles run: 2466  
Number of cycles run: 737  
Number of cycles run: 850  
Number of cycles run: 969  
Number of cycles run: 1873  
Number of cycles run: 1649  
Number of cycles run: 711  
Number of cycles run: 12044  
Number of cycles run: 832  
Number of cycles run: 891  
Number of cycles run: 1182  
Number of cycles run: 5452  
Number of cycles run: 6602  
Number of cycles run: 974  
Number of cycles run: 1196  
Number of cycles run: 2746  
Number of cycles run: 872  
Number of cycles run: 1722  
Number of cycles run: 923  
Number of cycles run: 7663  
Number of cycles run: 1600  
Number of cycles run: 772  
Number of cycles run: 7765  
Number of cycles run: 856  
Number of cycles run: 2136  
Number of cycles run: 7905  
Number of cycles run: 2391  
Number of cycles run: 2153  
Number of cycles run: 1227  
Number of cycles run: 1954  
Number of cycles run: 5050  
Number of cycles run: 1921  
Number of cycles run: 1850  
Number of cycles run: 2153  
Number of cycles run: 2742  
Number of cycles run: 1483  
Number of cycles run: 1233  
Number of cycles run: 1423  
Number of cycles run: 2400  
Number of cycles run: 1485  
Number of cycles run: 1117  
Number of cycles run: 1524  
Number of cycles run: 764  
Number of cycles run: 940  
Number of cycles run: 955  
Number of cycles run: 3004  
Number of cycles run: 1595  
Av cycles for attraction strength 1.2 is 2331  
standard diviation is 2329.7158537434716  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 1829  
Number of cycles run: 10560  
Number of cycles run: 2454  
Number of cycles run: 2514  
Number of cycles run: 2079  
Number of cycles run: 6619  
Number of cycles run: 5313  
Number of cycles run: 3263  
Number of cycles run: 1151  
Number of cycles run: 1192  
Number of cycles run: 2249  
Number of cycles run: 788  
Number of cycles run: 2524  
Number of cycles run: 16485  
Number of cycles run: 1465  
Number of cycles run: 3954  
Number of cycles run: 1022  
Number of cycles run: 2430  
Number of cycles run: 744  
Number of cycles run: 1434  
Number of cycles run: 1293  
Number of cycles run: 1304  
Number of cycles run: 1977  
Number of cycles run: 46470  
Number of cycles run: 870  
Number of cycles run: 676  
Number of cycles run: 942  
Number of cycles run: 2306  
Number of cycles run: 3265  
Number of cycles run: 3727  
Number of cycles run: 1902  
Number of cycles run: 2202  
Number of cycles run: 23130  
Number of cycles run: 796  
Number of cycles run: 3505  
Number of cycles run: 1492  
Number of cycles run: 1678  
Number of cycles run: 2455  
Number of cycles run: 2589  
Number of cycles run: 50000  
Number of cycles run: 2947  
Number of cycles run: 1290  
Number of cycles run: 24684  
Number of cycles run: 1580  
Number of cycles run: 2680  
Number of cycles run: 2574  
Number of cycles run: 810  
Number of cycles run: 864  
Number of cycles run: 2078  
Number of cycles run: 19865  
Av cycles for attraction strength 1.2 is 5640  
standard diviation is 10347.58280558157  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 4964  
Number of cycles run: 4536  
Number of cycles run: 2435  
Number of cycles run: 862  
Number of cycles run: 1307  
Number of cycles run: 10183  
Number of cycles run: 1860  
Number of cycles run: 3360  
Number of cycles run: 2230  
Number of cycles run: 1710  
Number of cycles run: 2003  
Number of cycles run: 1804  
Number of cycles run: 2603  
Number of cycles run: 2033  
Number of cycles run: 1707  
Number of cycles run: 2946  
Number of cycles run: 1842  
Number of cycles run: 2687  
Number of cycles run: 1221  
Number of cycles run: 1684  
Number of cycles run: 6986  
Number of cycles run: 2866  
Number of cycles run: 1578  
Number of cycles run: 2197  
Number of cycles run: 1675  
Number of cycles run: 1469  
Number of cycles run: 1370  
Number of cycles run: 752  
Number of cycles run: 815  
Number of cycles run: 1562  
Number of cycles run: 14211  
Number of cycles run: 1464  
Number of cycles run: 3345  
Number of cycles run: 1215  
Number of cycles run: 11502  
Number of cycles run: 778  
Number of cycles run: 1897  
Number of cycles run: 2045  
Number of cycles run: 1318  
Number of cycles run: 2435  
Number of cycles run: 2264  
Number of cycles run: 758  
Number of cycles run: 5697  
Number of cycles run: 1645  
Number of cycles run: 5303  
Number of cycles run: 1043  
Number of cycles run: 21311  
Number of cycles run: 920  
Number of cycles run: 1338  
Number of cycles run: 8337  
Av cycles for attraction strength 1.2 is 3281  
standard diviation is 3840.101131799654  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 13369  
Number of cycles run: 836  
Number of cycles run: 4096  
Number of cycles run: 1295  
Number of cycles run: 902  
Number of cycles run: 2184  
Number of cycles run: 863  
Number of cycles run: 2226  
Number of cycles run: 974  
Number of cycles run: 888  
Number of cycles run: 851  
Number of cycles run: 1921  
Number of cycles run: 3118  
Number of cycles run: 3229  
Number of cycles run: 1476  
Number of cycles run: 1342  
Number of cycles run: 1026  
Number of cycles run: 1429  
Number of cycles run: 2069  
Number of cycles run: 1836  
Number of cycles run: 724  
Number of cycles run: 737  
Number of cycles run: 4274  
Number of cycles run: 3737  
Number of cycles run: 2363  
Number of cycles run: 50000  
Number of cycles run: 2941  
Number of cycles run: 758

Number of cycles run: 1922  
Number of cycles run: 3074  
Number of cycles run: 1172  
Number of cycles run: 2296  
Number of cycles run: 763  
Number of cycles run: 873  
Number of cycles run: 771  
Number of cycles run: 1523  
Number of cycles run: 1414  
Number of cycles run: 1628  
Number of cycles run: 1978  
Number of cycles run: 757  
Number of cycles run: 2393  
Number of cycles run: 1199  
Number of cycles run: 3281  
Number of cycles run: 4288  
Number of cycles run: 6282  
Number of cycles run: 7501  
Number of cycles run: 8334  
Number of cycles run: 5436  
Number of cycles run: 3159  
Number of cycles run: 4755  
Av cycles for attraction strength 1.2 is 3525  
standard diviation is 7105.256495707661  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 50000  
Number of cycles run: 1787  
Number of cycles run: 916  
Number of cycles run: 2551  
Number of cycles run: 1141  
Number of cycles run: 1956  
Number of cycles run: 5033  
Number of cycles run: 9064  
Number of cycles run: 2462  
Number of cycles run: 2320  
Number of cycles run: 2183  
Number of cycles run: 3184  
Number of cycles run: 2805  
Number of cycles run: 847  
Number of cycles run: 2461  
Number of cycles run: 2167  
Number of cycles run: 4977  
Number of cycles run: 918  
Number of cycles run: 2285  
Number of cycles run: 835  
Number of cycles run: 901  
Number of cycles run: 1882  
Number of cycles run: 1845  
Number of cycles run: 858  
Number of cycles run: 1004  
Number of cycles run: 1557  
Number of cycles run: 1869  
Number of cycles run: 1789  
Number of cycles run: 785  
Number of cycles run: 6001  
Number of cycles run: 9130  
Number of cycles run: 1006  
Number of cycles run: 1309  
Number of cycles run: 762  
Number of cycles run: 837  
Number of cycles run: 1495  
Number of cycles run: 3658  
Number of cycles run: 914  
Number of cycles run: 5863  
Number of cycles run: 3592  
Number of cycles run: 816  
Number of cycles run: 1494  
Number of cycles run: 1789  
Number of cycles run: 2491  
Number of cycles run: 727  
Number of cycles run: 1658  
Number of cycles run: 3728  
Number of cycles run: 1911  
Number of cycles run: 14938  
Number of cycles run: 1766  
Av cycles for attraction strength 1.2 is 3565  
standard diviation is 7186.329319348121  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 5366  
Number of cycles run: 1534  
Number of cycles run: 1411  
Number of cycles run: 855  
Number of cycles run: 769  
Number of cycles run: 1338  
Number of cycles run: 1622  
Number of cycles run: 8713  
Number of cycles run: 734  
Number of cycles run: 807  
Number of cycles run: 1005  
Number of cycles run: 3687  
Number of cycles run: 848  
Number of cycles run: 1340  
Number of cycles run: 1714  
Number of cycles run: 2357  
Number of cycles run: 1771  
Number of cycles run: 932  
Number of cycles run: 17672  
Number of cycles run: 2597  
Number of cycles run: 1332  
Number of cycles run: 8759  
Number of cycles run: 2375  
Number of cycles run: 7972  
Number of cycles run: 747  
Number of cycles run: 1992  
Number of cycles run: 840  
Number of cycles run: 832  
Number of cycles run: 819  
Number of cycles run: 1843  
Number of cycles run: 1576  
Number of cycles run: 2399  
Number of cycles run: 2077  
Number of cycles run: 4386  
Number of cycles run: 6798  
Number of cycles run: 5165  
Number of cycles run: 1329  
Number of cycles run: 904  
Number of cycles run: 942  
Number of cycles run: 1328  
Number of cycles run: 1712  
Number of cycles run: 2319  
Number of cycles run: 1747  
Number of cycles run: 874  
Number of cycles run: 29125  
Number of cycles run: 5343  
Number of cycles run: 1192  
Number of cycles run: 2588  
Number of cycles run: 12487  
Number of cycles run: 2455  
Av cycles for attraction strength 1.2 is 3426  
standard diviation is 4957.3248632293435  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 770  
Number of cycles run: 2913  
Number of cycles run: 1901  
Number of cycles run: 1042  
Number of cycles run: 2530  
Number of cycles run: 1286  
Number of cycles run: 762  
Number of cycles run: 3686  
Number of cycles run: 2295  
Number of cycles run: 840  
Number of cycles run: 5886  
Number of cycles run: 1458  
Number of cycles run: 1856  
Number of cycles run: 839  
Number of cycles run: 736  
Number of cycles run: 854  
Number of cycles run: 13653  
Number of cycles run: 962  
Number of cycles run: 677  
Number of cycles run: 2475  
Number of cycles run: 1815  
Number of cycles run: 924  
Number of cycles run: 1642  
Number of cycles run: 5426  
Number of cycles run: 5637  
Number of cycles run: 8197  
Number of cycles run: 1515  
Number of cycles run: 1291  
Number of cycles run: 1149  
Number of cycles run: 728  
Number of cycles run: 5026  
Number of cycles run: 2182  
Number of cycles run: 1277  
Number of cycles run: 800  
Number of cycles run: 6954  
Number of cycles run: 2560  
Number of cycles run: 706  
Number of cycles run: 3006  
Number of cycles run: 815  
Number of cycles run: 1416  
Number of cycles run: 878  
Number of cycles run: 2124  
Number of cycles run: 17813  
Number of cycles run: 696  
Number of cycles run: 2443  
Number of cycles run: 2161  
Number of cycles run: 1720  
Number of cycles run: 820  
Number of cycles run: 1753  
Number of cycles run: 1148  
Av cycles for attraction strength 1.2 is 2640  
standard diviation is 3231.1354863299075  
Testing average cycles for attraction strength 1.2  
Number of cycles run: 726  
Number of cycles run: 2917  
Number of cycles run: 1433  
Number of cycles run: 941  
Number of cycles run: 1012  
Number of cycles run: 6679  
Number of cycles run: 1656  
Number of cycles run: 1298  
Number of cycles run: 13722  
Number of cycles run: 50000  
Number of cycles run: 3429  
Number of cycles run: 6204  
Number of cycles run: 1605  
Number of cycles run: 1205  
Number of cycles run: 1701  
Number of cycles run: 969  
Number of cycles run: 2085  
Number of cycles run: 810  
Number of cycles run: 5713  
Number of cycles run: 2044  
Number of cycles run: 1654  
Number of cycles run: 2874  
Number of cycles run: 5418  
Number of cycles run: 1002  
Number of cycles run: 802  
Number of cycles run: 981  
Number of cycles run: 20477  
Number of cycles run: 2031  
Number of cycles run: 1792  
Number of cycles run: 1260  
Number of cycles run: 1513  
Number of cycles run: 854  
Number of cycles run: 841  
Number of cycles run: 4099  
Number of cycles run: 917  
Number of cycles run: 1215  
Number of cycles run: 6586  
Number of cycles run: 2622  
Number of cycles run: 765  
Number of cycles run: 1138  
Number of cycles run: 2685  
Number of cycles run: 1391  
Number of cycles run: 1968  
Number of cycles run: 904  
Number of cycles run: 1696  
Number of cycles run: 1198  
Number of cycles run: 1256  
Number of cycles run: 998  
Number of cycles run: 1956  
Number of cycles run: 931  
Av cycles for attraction strength 1.2 is 3599  
standard diviation is 7524.150640817492