**Number of test:  10**

**Parameters:  50 - 4   (Time:  0 )**

**Average Path Length:  2.08546938776**

**Parameters:  50 - 8   (Time:  0 )**

**Average Path Length:  1.71542857143**

**Parameters:  100 - 4   (Time:  0 )**

**Average Path Length:  2.38511111111**

**Parameters:  100 - 8   (Time:  0 )**

**Average Path Length:  1.94252525253**

**Parameters:  500 - 4   (Time:  0 )**

**Average Path Length:  2.98196232465**

**Parameters:  500 - 8   (Time:  0 )**

**Average Path Length:  2.4862244489**

**Parameters:  500 - 16   (Time:  0 )**

**Average Path Length:  2.08789338677**

**Parameters:  1000 - 4   (Time:  0 )**

**Average Path Length:  3.23682142142**

**Parameters:  1000 - 8   (Time:  1 )**

**Average Path Length:  2.67744024024**

**Parameters:  1000 - 16   (Time:  1 )**

**Average Path Length:  2.29130810811**

**Parameters:  2000 - 8   (Time:  3 )**

**Average Path Length:  2.84950745373**

**Parameters:  2000 - 16   (Time:  5 )**

**Average Path Length:  2.49392026013**

**Parameters:  5000 - 8   (Time:  25 )**

**Average Path Length:  3.08230970194**

**Parameters:  5000 - 16   (Time:  36 )**

**Average Path Length:  2.71282032406**

**Parameters:  10000 - 8   (Time:  110 )**

**Average Path Length:  3.27070231223**

**Parameters:  10000 - 16   (Time:  149 )**

**Average Path Length:  2.83309250725**

**Program ended with exit code: 0**

**Number of test:  10**

**Parameters:  50 - 4   (Time: 0.0 sec)**

**Average Path Length:  2.08440816327**

**Parameters:  50 - 8   (Time: 0.0 sec)**

**Average Path Length:  1.71951020408**

**Parameters:  100 - 4   (Time: 0.01 sec)**

**Average Path Length:  2.37422222222**

**Parameters:  100 - 8   (Time: 0.01 sec)**

**Average Path Length:  1.94634343434**

**Parameters:  500 - 4   (Time: 0.21 sec)**

**Average Path Length:  2.99094268537**

**Parameters:  500 - 8   (Time: 0.27 sec)**

**Average Path Length:  2.48806252505**

**Parameters:  500 - 16   (Time: 0.42 sec)**

**Average Path Length:  2.08686973948**

**Parameters:  1000 - 4   (Time: 0.76 sec)**

**Average Path Length:  3.23986566567**

**Parameters:  1000 - 8   (Time: 1.02 sec)**

**Average Path Length:  2.68015075075**

**Parameters:  1000 - 16   (Time: 1.4 sec)**

**Average Path Length:  2.28986066066**

**Parameters:  2000 - 8   (Time: 4.0 sec)**

**Average Path Length:  2.84787068534**

**Parameters:  2000 - 16   (Time: 5.45 sec)**

**Average Path Length:  2.49145797899**

**Parameters:  5000 - 8   (Time: 25.6 sec)**

**Average Path Length:  3.08067070214**

**Parameters:  5000 - 16   (Time: 35.81 sec)**

**Average Path Length:  2.71232690538**

**Parameters:  10000 - 8   (Time: 108.62 sec)**

**Average Path Length:  3.27146380438**

**Parameters:  10000 - 16   (Time: 148.11 sec)**

**Average Path Length:  2.83197913991**

**Program ended with exit code: 0**

**Number of test:  10**

**Parameters:  50 - 4   (Time: 0.0 sec)**

**Average Path Length:  2.08187755102**

**Parameters:  50 - 8   (Time: 0.0 sec)**

**Average Path Length:  1.71804081633**

**Parameters:  100 - 4   (Time: 0.01 sec)**

**Average Path Length:  2.38127272727**

**Parameters:  100 - 8   (Time: 0.01 sec)**

**Average Path Length:  1.94797979798**

**Parameters:  500 - 4   (Time: 0.2 sec)**

**Average Path Length:  2.9822252505**

**Parameters:  500 - 8   (Time: 0.25 sec)**

**Average Path Length:  2.4842757515**

**Parameters:  500 - 16   (Time: 0.38 sec)**

**Average Path Length:  2.08463246493**

**Parameters:  1000 - 4   (Time: 0.92 sec)**

**Average Path Length:  3.22447187187**

**Parameters:  1000 - 8   (Time: 1.04 sec)**

**Average Path Length:  2.67734934935**

**Parameters:  1000 - 16   (Time: 1.44 sec)**

**Average Path Length:  2.28960820821**

**Parameters:  2000 - 8   (Time: 3.97 sec)**

**Average Path Length:  2.85002686343**

**Parameters:  2000 - 16   (Time: 5.85 sec)**

**Average Path Length:  2.4942853927**

**Parameters:  5000 - 8   (Time: 27.1 sec)**

**Average Path Length:  3.08110439688**

**Parameters:  5000 - 16   (Time: 36.78 sec)**

**Average Path Length:  2.71324133627**

**Parameters:  10000 - 8   (Time: 112.71 sec)**

**Average Path Length:  3.27507717572**

**Parameters:  10000 - 16   (Time: 155.13 sec)**

**Average Path Length:  2.83233531353**

**Parameters:  20000 - 8   (Time: 469.23 sec)**

**Average Path Length:  3.46906143957**

**Parameters:  20000 - 16   (Time: 704.17 sec)**

**Average Path Length:  2.93945704935**

**Program ended with exit code: 0**

**Number of test:  10**

**Parameters:  50 - 4   (Time: 0.0 sec)**

**Average Path Length:  2.08620408163**

**Parameters:  50 - 8   (Time: 0.0 sec)**

**Average Path Length:  1.71648979592**

**Parameters:  100 - 4   (Time: 0.01 sec)**

**Average Path Length:  2.37806060606**

**Parameters:  100 - 8   (Time: 0.01 sec)**

**Average Path Length:  1.94395959596**

**Parameters:  500 - 4   (Time: 0.22 sec)**

**Average Path Length:  2.98777074148**

**Parameters:  500 - 8   (Time: 0.26 sec)**

**Average Path Length:  2.48674869739**

**Parameters:  500 - 16   (Time: 0.36 sec)**

**Average Path Length:  2.08652985972**

**Parameters:  1000 - 4   (Time: 0.76 sec)**

**Average Path Length:  3.23423063063**

**Parameters:  1000 - 8   (Time: 1.0 sec)**

**Average Path Length:  2.6787007007**

**Parameters:  1000 - 16   (Time: 1.37 sec)**

**Average Path Length:  2.29107267267**

**Parameters:  2000 - 8   (Time: 3.83 sec)**

**Average Path Length:  2.84523456728**

**Parameters:  2000 - 16   (Time: 5.49 sec)**

**Average Path Length:  2.49213606803**

**Parameters:  5000 - 8   (Time: 25.59 sec)**

**Average Path Length:  3.07812224845**

**Parameters:  5000 - 16   (Time: 35.87 sec)**

**Average Path Length:  2.71307291858**

**Parameters:  10000 - 8   (Time: 109.92 sec)**

**Average Path Length:  3.27209281728**

**Parameters:  10000 - 16   (Time: 149.39 sec)**

**Average Path Length:  2.83282736674**

**Parameters:  20000 - 8   (Time: 1052.18 sec)**

**Average Path Length:  3.46584535527**

**Parameters:  20000 - 16   (Time: 3163.27 sec)**

**Average Path Length:  2.93875823941**

**Program ended with exit code: 15**

**Number of test:  10**

**Parameters:  50 - 4   (Time: 0.04 sec)**

**Average Path Length:  2.09265306122**

**Average Nodes Visited: 6.2**

**Parameters:  50 - 8   (Time: 0.1 sec)**

**Average Path Length:  1.72048979592**

**Average Nodes Visited: 7.6**

**Parameters:  100 - 4   (Time: 0.15 sec)**

**Average Path Length:  2.37519191919**

**Average Nodes Visited: 7.8**

**Parameters:  100 - 8   (Time: 0.4 sec)**

**Average Path Length:  1.94484848485**

**Average Nodes Visited: 8.3**

**Parameters:  500 - 4   (Time: 3.65 sec)**

**Average Path Length:  2.99538036072**

**Average Nodes Visited: 9.0**

**Parameters:  500 - 8   (Time: 12.46 sec)**

**Average Path Length:  2.48475911824**

**Average Nodes Visited: 10.1**

**Parameters:  500 - 16   (Time: 24.18 sec)**

**Average Path Length:  2.08552144289**

**Average Nodes Visited: 13.1**

**Parameters:  1000 - 4   (Time: 16.79 sec)**

**Average Path Length:  3.23643443443**

**Average Nodes Visited: 13.6**

**Parameters:  1000 - 8   (Time: 50.05 sec)**

**Average Path Length:  2.67741361361**

**Average Nodes Visited: 13.5**

**Parameters:  1000 - 16   (Time: 186.53 sec)**

**Average Path Length:  2.28971111111**

**Average Nodes Visited: 15.3**

**Program ended with exit code: 0**

**Number of test:  10**

**Node Failing Probability:  0.2**

**Parameters:  50 - 4   (Time: 0.04 sec)**

**Average Path Length:  2.07453061224**

**Average Nodes Visited: 6.1**

**Failing Paths Ratio: 0.0**

**Parameters:  50 - 8   (Time: 0.11 sec)**

**Average Path Length:  1.71673469388**

**Average Nodes Visited: 10.4**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 0.18 sec)**

**Average Path Length:  2.37505050505**

**Average Nodes Visited: 7.1**

**Failing Paths Ratio: 0.015**

**Parameters:  100 - 8   (Time: 0.39 sec)**

**Average Path Length:  1.94688888889**

**Average Nodes Visited: 11.5**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 4.12 sec)**

**Average Path Length:  3.00113987976**

**Average Nodes Visited: 10.0**

**Failing Paths Ratio: 0.008**

**Parameters:  500 - 8   (Time: 12.46 sec)**

**Average Path Length:  2.48787254509**

**Average Nodes Visited: 14.9**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 16   (Time: 24.36 sec)**

**Average Path Length:  2.08659078156**

**Average Nodes Visited: 24.6**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 17.71 sec)**

**Average Path Length:  3.24547347347**

**Average Nodes Visited: 10.3**

**Failing Paths Ratio: 0.0235**

**Parameters:  1000 - 8   (Time: 61.96 sec)**

**Average Path Length:  2.68043883884**

**Average Nodes Visited: 16.0**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 141.71 sec)**

**Average Path Length:  2.28936276276**

**Average Nodes Visited: 26.2**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

**Number of test:  10**

**Node Failing Probability:  0.4**

**Parameters:  50 - 4   (Time: 0.04 sec)**

**Average Path Length:  2.09012244898**

**Average Nodes Visited: 6.0**

**Failing Paths Ratio: 0.01**

**Parameters:  50 - 8   (Time: 0.11 sec)**

**Average Path Length:  1.71934693878**

**Average Nodes Visited: 10.0**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 0.16 sec)**

**Average Path Length:  2.3702020202**

**Average Nodes Visited: 6.9**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 8   (Time: 0.4 sec)**

**Average Path Length:  1.9441010101**

**Average Nodes Visited: 10.6**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 4.04 sec)**

**Average Path Length:  2.98864368737**

**Average Nodes Visited: 8.9**

**Failing Paths Ratio: 0.006**

**Parameters:  500 - 8   (Time: 11.52 sec)**

**Average Path Length:  2.49176112224**

**Average Nodes Visited: 14.5**

**Failing Paths Ratio: 0.003**

**Parameters:  500 - 16   (Time: 24.88 sec)**

**Average Path Length:  2.08401603206**

**Average Nodes Visited: 24.9**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 16.34 sec)**

**Average Path Length:  3.24037277277**

**Average Nodes Visited: 10.0**

**Failing Paths Ratio: 0.0055**

**Parameters:  1000 - 8   (Time: 47.68 sec)**

**Average Path Length:  2.68023523524**

**Average Nodes Visited: 16.4**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 125.61 sec)**

**Average Path Length:  2.28681601602**

**Average Nodes Visited: 26.2**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

**Number of test:  10**

**Node Failing Probability:  0.3**

**Parameters:  50 - 4   (Time: 0.04 sec)**

**Average Path Length:  2.08097959184**

**Average Nodes Visited: 6.3**

**Failing Paths Ratio: 0.0**

**Parameters:  50 - 8   (Time: 0.1 sec)**

**Average Path Length:  1.71836734694**

**Average Nodes Visited: 9.9**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 0.16 sec)**

**Average Path Length:  2.37929292929**

**Average Nodes Visited: 7.6**

**Failing Paths Ratio: 0.005**

**Parameters:  100 - 8   (Time: 0.39 sec)**

**Average Path Length:  1.94254545455**

**Average Nodes Visited: 11.3**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 3.96 sec)**

**Average Path Length:  2.98839519038**

**Average Nodes Visited: 9.5**

**Failing Paths Ratio: 0.003**

**Parameters:  500 - 8   (Time: 12.43 sec)**

**Average Path Length:  2.48707815631**

**Average Nodes Visited: 14.4**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 16   (Time: 21.49 sec)**

**Average Path Length:  2.08724008016**

**Average Nodes Visited: 25.0**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 16.3 sec)**

**Average Path Length:  3.22548328328**

**Average Nodes Visited: 9.2**

**Failing Paths Ratio: 0.0015**

**Parameters:  1000 - 8   (Time: 52.82 sec)**

**Average Path Length:  2.67781241241**

**Average Nodes Visited: 15.8**

**Failing Paths Ratio: 0.0005**

**Parameters:  1000 - 16   (Time: 156.76 sec)**

**Average Path Length:  2.28873633634**

**Average Nodes Visited: 26.1**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

**Number of test:  20**

**Node Failing Probability:  0.3**

**Parameters:  50 - 4   (Time: 0.08 sec)**

**Average Path Length:  2.08591836735**

**Average Nodes Visited: 6.15**

**Failing Paths Ratio: 0.0**

**Parameters:  50 - 8   (Time: 0.2 sec)**

**Average Path Length:  1.72**

**Average Nodes Visited: 9.6**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 0.35 sec)**

**Average Path Length:  2.37509090909**

**Average Nodes Visited: 7.15**

**Failing Paths Ratio: 0.0075**

**Parameters:  100 - 8   (Time: 0.73 sec)**

**Average Path Length:  1.94484848485**

**Average Nodes Visited: 12.05**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 7.49 sec)**

**Average Path Length:  2.98446452906**

**Average Nodes Visited: 9.0**

**Failing Paths Ratio: 0.036**

**Parameters:  500 - 8   (Time: 23.2 sec)**

**Average Path Length:  2.48716713427**

**Average Nodes Visited: 14.65**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 16   (Time: 48.81 sec)**

**Average Path Length:  2.08599198397**

**Average Nodes Visited: 24.8**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 32.92 sec)**

**Average Path Length:  3.23547247247**

**Average Nodes Visited: 10.1**

**Failing Paths Ratio: 0.0095**

**Parameters:  1000 - 8   (Time: 95.45 sec)**

**Average Path Length:  2.67768538539**

**Average Nodes Visited: 16.15**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 259.69 sec)**

**Average Path Length:  2.29062882883**

**Average Nodes Visited: 26.0**

**Failing Paths Ratio: 0.0**

**Parameters:  2000 - 8   (Time: 3194.9 sec)**

**Average Path Length:  2.84591715858**

**Average Nodes Visited: 17.95**

**Failing Paths Ratio: 0.000875**

**Parameters:  2000 - 16   (Time: 4029.57 sec)**

**Average Path Length:  2.49358669335**

**Average Nodes Visited: 28.0**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 15**

**Number of Trials:  20**

**Node Failing Probability:  0.3**

**Number of Transactions: 100**

**Parameters:  50 - 4   (Time: 0.75 sec)**

**Average Path Length:  2.07546938776**

**Average Nodes Visited: 6.15**

**Failing Paths Ratio: 0.0175**

**Parameters:  50 - 8   (Time: 2.01 sec)**

**Average Path Length:  1.71840816327**

**Average Nodes Visited: 10.0**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 1.44 sec)**

**Average Path Length:  2.38573737374**

**Average Nodes Visited: 7.05**

**Failing Paths Ratio: 0.002**

**Parameters:  100 - 8   (Time: 3.61 sec)**

**Average Path Length:  1.94278787879**

**Average Nodes Visited: 11.7**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 7.6 sec)**

**Average Path Length:  2.98237194389**

**Average Nodes Visited: 9.0**

**Failing Paths Ratio: 0.0045**

**Parameters:  500 - 8   (Time: 27.45 sec)**

**Average Path Length:  2.48841923848**

**Average Nodes Visited: 15.05**

**Failing Paths Ratio: 0.0015**

**Parameters:  500 - 16   (Time: 50.42 sec)**

**Average Path Length:  2.0856741483**

**Average Nodes Visited: 25.1**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 18.4 sec)**

**Average Path Length:  3.24472832833**

**Average Nodes Visited: 10.0**

**Failing Paths Ratio: 0.015**

**Parameters:  1000 - 8   (Time: 51.4 sec)**

**Average Path Length:  2.67887317317**

**Average Nodes Visited: 16.1**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 132.44 sec)**

**Average Path Length:  2.28748498498**

**Average Nodes Visited: 26.1**

**Failing Paths Ratio: 0.0**

**Parameters:  2000 - 8   (Time: 93.07 sec)**

**Average Path Length:  2.84929989995**

**Average Nodes Visited: 16.95**

**Failing Paths Ratio: 0.0005**

**Parameters:  2000 - 16   (Time: 417.99 sec)**

**Average Path Length:  2.49423094047**

**Average Nodes Visited: 28.05**

**Failing Paths Ratio: 0.0**

**Parameters:  5000 - 8   (Time: 331.25 sec)**

**Average Path Length:  3.08281026205**

**Average Nodes Visited: 18.7**

**Failing Paths Ratio: 0.003**

**Parameters:  5000 - 16   (Time: 1305.06 sec)**

**Average Path Length:  2.71352504501**

**Average Nodes Visited: 31.55**

**Failing Paths Ratio: 0.0**

**Parameters:  10000 - 8   (Time: 965.55 sec)**

**Average Path Length:  3.2766180228**

**Average Nodes Visited: 19.9**

**Failing Paths Ratio: 0.0005**

**Parameters:  10000 - 16   (Time: 2534.6 sec)**

**Average Path Length:  2.83317157916**

**Average Nodes Visited: 33.7**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

**Number of Trials:  20**

**Node Failing Probability:  0.2**

**Number of Transactions: 100**

**Parameters:  50 - 4   (Time: 0.75 sec)**

**Average Path Length:  2.07632653061**

**Average Nodes Visited: 6.0**

**Failing Paths Ratio: 0.0005**

**Parameters:  50 - 8   (Time: 2.0 sec)**

**Average Path Length:  1.71783673469**

**Average Nodes Visited: 10.65**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 1.54 sec)**

**Average Path Length:  2.38229292929**

**Average Nodes Visited: 7.0**

**Failing Paths Ratio: 0.028**

**Parameters:  100 - 8   (Time: 3.95 sec)**

**Average Path Length:  1.94306060606**

**Average Nodes Visited: 11.5**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 8.18 sec)**

**Average Path Length:  2.99162845691**

**Average Nodes Visited: 9.0**

**Failing Paths Ratio: 0.029**

**Parameters:  500 - 8   (Time: 23.9 sec)**

**Average Path Length:  2.48335511022**

**Average Nodes Visited: 14.8**

**Failing Paths Ratio: 0.0005**

**Parameters:  500 - 16   (Time: 47.75 sec)**

**Average Path Length:  2.08659278557**

**Average Nodes Visited: 24.95**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 17.23 sec)**

**Average Path Length:  3.23735685686**

**Average Nodes Visited: 9.85**

**Failing Paths Ratio: 0.005**

**Parameters:  1000 - 8   (Time: 48.66 sec)**

**Average Path Length:  2.67837017017**

**Average Nodes Visited: 16.0**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 153.27 sec)**

**Average Path Length:  2.28902732733**

**Average Nodes Visited: 26.85**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

**Number of Trials:  20**

**Node Failing Probability:  0.4**

**Number of Transactions: 100**

**Parameters:  50 - 4   (Time: 0.79 sec)**

**Average Path Length:  2.08334693878**

**Average Nodes Visited: 6.4**

**Failing Paths Ratio: 0.001**

**Parameters:  50 - 8   (Time: 1.79 sec)**

**Average Path Length:  1.71934693878**

**Average Nodes Visited: 10.2**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 4   (Time: 1.53 sec)**

**Average Path Length:  2.37407070707**

**Average Nodes Visited: 7.0**

**Failing Paths Ratio: 0.0**

**Parameters:  100 - 8   (Time: 3.54 sec)**

**Average Path Length:  1.94619191919**

**Average Nodes Visited: 11.05**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 4   (Time: 8.02 sec)**

**Average Path Length:  2.98313466934**

**Average Nodes Visited: 9.05**

**Failing Paths Ratio: 0.014**

**Parameters:  500 - 8   (Time: 23.89 sec)**

**Average Path Length:  2.4858993988**

**Average Nodes Visited: 14.65**

**Failing Paths Ratio: 0.0**

**Parameters:  500 - 16   (Time: 49.63 sec)**

**Average Path Length:  2.08642845691**

**Average Nodes Visited: 25.0**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 4   (Time: 18.73 sec)**

**Average Path Length:  3.2306976977**

**Average Nodes Visited: 10.25**

**Failing Paths Ratio: 0.0305**

**Parameters:  1000 - 8   (Time: 53.33 sec)**

**Average Path Length:  2.67722102102**

**Average Nodes Visited: 15.95**

**Failing Paths Ratio: 0.0**

**Parameters:  1000 - 16   (Time: 145.46 sec)**

**Average Path Length:  2.28895655656**

**Average Nodes Visited: 27.0**

**Failing Paths Ratio: 0.0**

**Program ended with exit code: 0**

Number of Trials: 20

Number of Transactions:100

Parameters: 50 - 4 (Time 0.8 sec)

Average Path Length: 2.08873469388

Average Nodes Visited: 6.05

Total Failing Paths: [0.2, 0.3, 0.4] -> [41, 93, 209]

Parameters: 50 - 8 (Time 1.82 sec)

Average Path Length: 1.71840816327

Average Nodes Visited: 10.1

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 11, 16]

Parameters: 100 - 4 (Time 1.58 sec)

Average Path Length: 2.37803030303

Average Nodes Visited: 7.05

Total Failing Paths: [0.2, 0.3, 0.4] -> [75, 122, 436]

Parameters: 100 - 8 (Time 3.69 sec)

Average Path Length: 1.94293939394

Average Nodes Visited: 11.65

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 6, 82]

Parameters: 500 - 4 (Time 9.56 sec)

Average Path Length: 2.99591503006

Average Nodes Visited: 9.1

Total Failing Paths: [0.2, 0.3, 0.4] -> [65, 289, 831]

Parameters: 500 - 8 (Time 26.52 sec)

Average Path Length: 2.4901254509

Average Nodes Visited: 14.65

Total Failing Paths: [0.2, 0.3, 0.4] -> [6, 11, 182]

Parameters: 500 - 16 (Time 56.63 sec)

Average Path Length: 2.08664849699

Average Nodes Visited: 25.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 2]

Parameters: 1000 - 4 (Time 20.76 sec)

Average Path Length: 3.23265555556

Average Nodes Visited: 10.15

Total Failing Paths: [0.2, 0.3, 0.4] -> [297, 315, 705]

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 3.73 sec)

Average Path Length: 2.08451428571

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [108, 708, 1746]

Parameters: 50 - 8 (Time 9.62 sec)

Average Path Length: 1.71795102041

Average Nodes Visited: 10.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 18, 58]

Parameters: 100 - 4 (Time 7.56 sec)

Average Path Length: 2.37868888889

Average Nodes Visited: 7.04

Total Failing Paths: [0.2, 0.3, 0.4] -> [173, 1384, 2088]

Parameters: 100 - 8 (Time 19.75 sec)

Average Path Length: 1.94388282828

Average Nodes Visited: 11.96

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 58, 160]

Parameters: 500 - 4 (Time 39.97 sec)

Average Path Length: 2.98572561122

Average Nodes Visited: 8.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [667, 1790, 3672]

Parameters: 500 - 8 (Time 131.04 sec)

Average Path Length: 2.48547230461

Average Nodes Visited: 14.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [24, 159, 610]

Parameters: 500 - 16 (Time 260.37 sec)

Average Path Length: 2.08623527054

Average Nodes Visited: 24.65

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 25]

Parameters: 1000 - 4 (Time 91.04 sec)

Average Path Length: 3.23630772773

Average Nodes Visited: 10.14

Total Failing Paths: [0.2, 0.3, 0.4] -> [660, 2631, 3722]

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 4.25 sec)

Average Path Length: 2.08166530612

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [180, 700, 1626]

Parameters: 50 - 8 (Time 10.53 sec)

Average Path Length: 1.71830204082

Average Nodes Visited: 10.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [1, 17, 64]

Parameters: 100 - 4 (Time 8.57 sec)

Average Path Length: 2.37431515152

Average Nodes Visited: 7.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [163, 909, 2526]

Parameters: 100 - 8 (Time 19.08 sec)

Average Path Length: 1.9444040404

Average Nodes Visited: 12.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [3, 63, 167]

Parameters: 500 - 4 (Time 42.17 sec)

Average Path Length: 2.9880854509

Average Nodes Visited: 9.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [539, 1916, 3207]

Parameters: 500 - 8 (Time 120.96 sec)

Average Path Length: 2.48543014028

Average Nodes Visited: 14.51

Total Failing Paths: [0.2, 0.3, 0.4] -> [39, 174, 574]

Parameters: 500 - 16 (Time 243.29 sec)

Average Path Length: 2.0859511022

Average Nodes Visited: 24.94

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 23]

Parameters: 1000 - 4 (Time 87.97 sec)

Average Path Length: 3.23761231231

Average Nodes Visited: 9.96

Total Failing Paths: [0.2, 0.3, 0.4] -> [738, 2338, 3535]

Parameters: 1000 - 8 (Time 3855.06 sec)

Average Path Length: 2.67764864865

Average Nodes Visited: 16.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [38, 272, 796]

Parameters: 1000 - 16 (Time 687.05 sec)

Average Path Length: 2.28891349349

Average Nodes Visited: 26.05

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 24]

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 3.71 sec)

Average Path Length: 2.0816244898

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [274, 1077, 982]

Parameters: 50 - 8 (Time 9.61 sec)

Average Path Length: 1.71875102041

Average Nodes Visited: 10.02

Total Failing Paths: [0.2, 0.3, 0.4] -> [2, 10, 37]

Parameters: 100 - 4 (Time 7.25 sec)

Average Path Length: 2.37319393939

Average Nodes Visited: 7.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [443, 1261, 1120]

Parameters: 100 - 8 (Time 18.94 sec)

Average Path Length: 1.94530909091

Average Nodes Visited: 11.07

Total Failing Paths: [0.2, 0.3, 0.4] -> [21, 34, 130]

Parameters: 500 - 4 (Time 38.31 sec)

Average Path Length: 2.98281378758

Average Nodes Visited: 8.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [1001, 1654, 2838]

Parameters: 500 - 8 (Time 127.68 sec)

Average Path Length: 2.48651951904

Average Nodes Visited: 14.63

Total Failing Paths: [0.2, 0.3, 0.4] -> [44, 299, 566]

Parameters: 500 - 16 (Time 254.38 sec)

Average Path Length: 2.08632136273

Average Nodes Visited: 24.86

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 18]

Parameters: 1000 - 4 (Time 85.96 sec)

Average Path Length: 3.23798508509

Average Nodes Visited: 9.97

Total Failing Paths: [0.2, 0.3, 0.4] -> [1004, 2822, 2929]

Parameters: 1000 - 8 (Time 255.06 sec)

Average Path Length: 2.67786938939

Average Nodes Visited: 16.02

Total Failing Paths: [0.2, 0.3, 0.4] -> [88, 442, 590]

Parameters: 1000 - 16 (Time 730.8 sec)

Average Path Length: 2.28825123123

Average Nodes Visited: 26.67

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 8, 37]

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 3.76 sec)

Average Path Length: 2.07946122449

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [390, 642, 722]

Parameters: 50 - 8 (Time 9.4 sec)

Average Path Length: 1.71806530612

Average Nodes Visited: 10.03

Total Failing Paths: [0.2, 0.3, 0.4] -> [4, 25, 30]

Parameters: 100 - 4 (Time 7.31 sec)

Average Path Length: 2.37705656566

Average Nodes Visited: 7.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [609, 1114, 1191]

Parameters: 100 - 8 (Time 17.4 sec)

Average Path Length: 1.94349494949

Average Nodes Visited: 11.09

Total Failing Paths: [0.2, 0.3, 0.4] -> [8, 36, 246]

Parameters: 500 - 4 (Time 38.32 sec)

Average Path Length: 2.98510965932

Average Nodes Visited: 8.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [1041, 1927, 2729]

Parameters: 500 - 8 (Time 116.83 sec)

Average Path Length: 2.48805563126

Average Nodes Visited: 14.38

Total Failing Paths: [0.2, 0.3, 0.4] -> [65, 205, 723]

Parameters: 500 - 16 (Time 244.17 sec)

Average Path Length: 2.08657667335

Average Nodes Visited: 25.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 14]

Parameters: 1000 - 4 (Time 89.56 sec)

Average Path Length: 3.23549361361

Average Nodes Visited: 9.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [1228, 2534, 2924]

Parameters: 1000 - 8 (Time 249.2 sec)

Average Path Length: 2.67776262262

Average Nodes Visited: 15.87

Total Failing Paths: [0.2, 0.3, 0.4] -> [61, 298, 752]

Parameters: 1000 - 16 (Time 4319.87 sec)

Average Path Length: 2.2889649049

Average Nodes Visited: 26.35

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 6, 18]

* Start from G\_full\_10
* G\_full\_10 nodes are stable, do not fail

Number of Trials: 1000

Number of Transactions:100

Parameters: 50 - 4 (Time 39.95 sec)

Average Path Length: 2.05073306122

Average Nodes Visited: 5.999

Total Failing Paths: [0.2, 0.3, 0.4] -> [129, 330, 354]

Parameters: 50 - 8 (Time 96.51 sec)

Average Path Length: 1.71780571429

Average Nodes Visited: 10.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [4, 9, 2]

Parameters: 100 - 4 (Time 75.96 sec)

Average Path Length: 2.34948848485

Average Nodes Visited: 6.996

Total Failing Paths: [0.2, 0.3, 0.4] -> [560, 1345, 2096]

Parameters: 100 - 8 (Time 180.89 sec)

Average Path Length: 1.94372848485

Average Nodes Visited: 11.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [12, 57, 126]

Parameters: 500 - 4 (Time 429.6 sec)

Average Path Length: 2.95205438076

Average Nodes Visited: 9.004

Total Failing Paths: [0.2, 0.3, 0.4] -> [3199, 7177, 12218]

Parameters: 500 - 8 (Time 1248.28 sec)

Average Path Length: 2.48582593186

Average Nodes Visited: 13.997

Total Failing Paths: [0.2, 0.3, 0.4] -> [203, 680, 1672]

Parameters: 500 - 16 (Time 2604.73 sec)

Average Path Length: 2.08610341483

Average Nodes Visited: 24.981

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 39]

* Start from G\_full\_10
* G\_full\_10 nodes are stable, do not fail

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 4.08 sec)

Average Path Length: 2.04853061224

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [16, 39, 40]

Parameters: 50 - 8 (Time 9.56 sec)

Average Path Length: 1.71777959184

Average Nodes Visited: 10.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 0]

Parameters: 100 - 4 (Time 8.13 sec)

Average Path Length: 2.34905858586

Average Nodes Visited: 7.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [107, 151, 288]

Parameters: 100 - 8 (Time 19.85 sec)

Average Path Length: 1.94474343434

Average Nodes Visited: 11.09

Total Failing Paths: [0.2, 0.3, 0.4] -> [1, 21, 3]

Parameters: 500 - 4 (Time 42.4 sec)

Average Path Length: 2.9523292986

Average Nodes Visited: 8.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [333, 700, 1483]

Parameters: 500 - 8 (Time 126.39 sec)

Average Path Length: 2.48476953908

Average Nodes Visited: 14.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [9, 62, 123]

Parameters: 500 - 16 (Time 261.36 sec)

Average Path Length: 2.08690725451

Average Nodes Visited: 25.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 1]

Parameters: 1000 - 4 (Time 93.76 sec)

Average Path Length: 3.20335175175

Average Nodes Visited: 9.92

Total Failing Paths: [0.2, 0.3, 0.4] -> [304, 1072, 1792]

Parameters: 1000 - 8 (Time 248.2 sec)

Average Path Length: 2.67731157157

Average Nodes Visited: 16.07

Total Failing Paths: [0.2, 0.3, 0.4] -> [36, 74, 369]

Parameters: 1000 - 16 (Time 717.5 sec)

Average Path Length: 2.28943717718

Average Nodes Visited: 26.08

Total Failing Paths: [0.2, 0.3, 0.4] -> [1, 5, 9]

Parameters: 2000 - 8 (Time 514.74 sec)

Average Path Length: 2.84742342171

Average Nodes Visited: 16.95

Total Failing Paths: [0.2, 0.3, 0.4] -> [34, 158, 684]

Parameters: 2000 - 16 (Time 2139.58 sec)

Average Path Length: 2.49373433717

Average Nodes Visited: 28.11

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 45]

Parameters: 5000 - 8 (Time 1683.16 sec)

Average Path Length: 3.0806599784

Average Nodes Visited: 19.06

Total Failing Paths: [0.2, 0.3, 0.4] -> [127, 268, 634]

Parameters: 5000 - 16 (Time 67634.78 sec)

Average Path Length: 2.71245690898

Average Nodes Visited: 31.46

Total Failing Paths: [0.2, 0.3, 0.4] -> [3, 11, 47]

* Starting from ER G(50,p=0.5)
* Each node can go offline

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 21.81 sec)

Average Path Length: 1.50166530612

Average Nodes Visited: 4.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [4, 12, 19]

Parameters: 50 - 8 (Time 21.45 sec)

Average Path Length: 1.50130612245

Average Nodes Visited: 8.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 1]

Parameters: 100 - 4 (Time 16.98 sec)

Average Path Length: 2.04991111111

Average Nodes Visited: 6.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [156, 591, 968]

Parameters: 100 - 8 (Time 26.67 sec)

Average Path Length: 1.86671313131

Average Nodes Visited: 10.98

Total Failing Paths: [0.2, 0.3, 0.4] -> [2, 11, 98]

Parameters: 500 - 4 (Time 42.81 sec)

Average Path Length: 2.74571422846

Average Nodes Visited: 8.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [806, 1119, 3002]

Parameters: 500 - 8 (Time 119.96 sec)

Average Path Length: 2.45414637275

Average Nodes Visited: 13.98

Total Failing Paths: [0.2, 0.3, 0.4] -> [27, 108, 521]

Parameters: 500 - 16 (Time 230.72 sec)

Average Path Length: 2.09507342685

Average Nodes Visited: 25.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 19]

Parameters: 1000 - 4 (Time 89.97 sec)

Average Path Length: 2.9699005005

Average Nodes Visited: 9.05

Total Failing Paths: [0.2, 0.3, 0.4] -> [988, 1688, 3479]

Parameters: 1000 - 8 (Time 263.88 sec)

Average Path Length: 2.64692062062

Average Nodes Visited: 15.17

Total Failing Paths: [0.2, 0.3, 0.4] -> [53, 212, 757]

Parameters: 1000 - 16 (Time 4265.34 sec)

Average Path Length: 2.29864930931

Average Nodes Visited: 27.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 2, 85]

Parameters: 2000 - 8 (Time 519.69 sec)

Average Path Length: 2.80987215608

Average Nodes Visited: 16.78

Total Failing Paths: [0.2, 0.3, 0.4] -> [141, 314, 1138]

Parameters: 2000 - 16 (Time 6491.86 sec)

Average Path Length: 2.50216117059

Average Nodes Visited: 28.97

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 5, 36]

Parameters: 5000 - 8 (Time 1574.19 sec)

Average Path Length: 3.03022013603

Average Nodes Visited: 17.96

Total Failing Paths: [0.2, 0.3, 0.4] -> [175, 809, 1234]

Parameters: 5000 - 16 (Time 243499.08 sec)

Average Path Length: 2.71832156751

Average Nodes Visited: 31.77

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 6, 102]

* Starting from ER G(50,p=0.5)
* Each node can go offline

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 24.32 sec)

Average Path Length: 1.49954285714

Average Nodes Visited: 4.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 12, 31]

Parameters: 50 - 8 (Time 24.79 sec)

Average Path Length: 1.4976244898

Average Nodes Visited: 8.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 0]

Parameters: 100 - 4 (Time 17.85 sec)

Average Path Length: 2.05032323232

Average Nodes Visited: 5.97

Total Failing Paths: [0.2, 0.3, 0.4] -> [140, 390, 944]

Parameters: 100 - 8 (Time 29.86 sec)

Average Path Length: 1.86726666667

Average Nodes Visited: 10.98

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 34, 93]

Parameters: 500 - 4 (Time 43.92 sec)

Average Path Length: 2.74757995992

Average Nodes Visited: 8.04

Total Failing Paths: [0.2, 0.3, 0.4] -> [498, 1383, 2616]

Parameters: 500 - 8 (Time 121.87 sec)

Average Path Length: 2.45329771543

Average Nodes Visited: 14.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [29, 133, 483]

Parameters: 500 - 16 (Time 237.39 sec)

Average Path Length: 2.09489699399

Average Nodes Visited: 24.95

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 37]

Parameters: 1000 - 4 (Time 89.38 sec)

Average Path Length: 2.97048284284

Average Nodes Visited: 9.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [878, 1797, 3377]

Parameters: 1000 - 8 (Time 299.35 sec)

Average Path Length: 2.64568632633

Average Nodes Visited: 15.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [49, 288, 786]

Parameters: 1000 - 16 (Time 675.47 sec)

Average Path Length: 2.29941757758

Average Nodes Visited: 26.94

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 5, 29]

Parameters: 2000 - 8 (Time 547.71 sec)

Average Path Length: 2.81004954477

Average Nodes Visited: 16.09

Total Failing Paths: [0.2, 0.3, 0.4] -> [122, 335, 920]

Parameters: 2000 - 16 (Time 4499.32 sec)

Average Path Length: 2.50196478239

Average Nodes Visited: 29.02

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 4, 42]

Parameters: 5000 - 8 (Time 1618.39 sec)

Average Path Length: 3.03037534147

Average Nodes Visited: 18.17

Total Failing Paths: [0.2, 0.3, 0.4] -> [232, 329, 1659]

Parameters: 5000 - 16 (Time 6409.46 sec)

Average Path Length: 2.71844845769

Average Nodes Visited: 31.98

Total Failing Paths: [0.2, 0.3, 0.4] -> [1, 10, 107]

* Starting from ER G(50,p=0.5)
* Each node can go offline

Number of Trials: 100

Number of Transactions:100

Parameters: 50 - 4 (Time 23.38 sec)

Average Path Length: 1.49920816327

Average Nodes Visited: 4.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 17, 48]

Parameters: 50 - 8 (Time 22.89 sec)

Average Path Length: 1.49759183673

Average Nodes Visited: 8.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 0, 0]

Parameters: 100 - 4 (Time 18.29 sec)

Average Path Length: 2.05201818182

Average Nodes Visited: 5.97

Total Failing Paths: [0.2, 0.3, 0.4] -> [170, 442, 762]

Parameters: 100 - 8 (Time 28.26 sec)

Average Path Length: 1.86701212121

Average Nodes Visited: 11.03

Total Failing Paths: [0.2, 0.3, 0.4] -> [5, 20, 94]

Parameters: 500 - 4 (Time 47.12 sec)

Average Path Length: 2.74811078156

Average Nodes Visited: 8.0

Total Failing Paths: [0.2, 0.3, 0.4] -> [804, 1175, 2885]

Parameters: 500 - 8 (Time 122.15 sec)

Average Path Length: 2.45329034068

Average Nodes Visited: 14.02

Total Failing Paths: [0.2, 0.3, 0.4] -> [21, 271, 599]

Parameters: 500 - 16 (Time 259.79 sec)

Average Path Length: 2.09480985972

Average Nodes Visited: 25.05

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 5, 8]

Parameters: 1000 - 4 (Time 89.91 sec)

Average Path Length: 2.96839217217

Average Nodes Visited: 8.89

Total Failing Paths: [0.2, 0.3, 0.4] -> [722, 2339, 3144]

Parameters: 1000 - 8 (Time 276.63 sec)

Average Path Length: 2.64596776777

Average Nodes Visited: 15.01

Total Failing Paths: [0.2, 0.3, 0.4] -> [77, 209, 796]

Parameters: 1000 - 16 (Time 722.29 sec)

Average Path Length: 2.29927059059

Average Nodes Visited: 27.13

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 5, 45]

Parameters: 2000 - 8 (Time 510.62 sec)

Average Path Length: 2.80932872936

Average Nodes Visited: 16.8

Total Failing Paths: [0.2, 0.3, 0.4] -> [89, 399, 1069]

Parameters: 2000 - 16 (Time 45264.05 sec)

Average Path Length: 2.50163947974

Average Nodes Visited: 28.92

Total Failing Paths: [0.2, 0.3, 0.4] -> [2, 2, 96]

Parameters: 5000 - 8 (Time 17048.58 sec)

Average Path Length: 3.02916277495

Average Nodes Visited: 17.99

Total Failing Paths: [0.2, 0.3, 0.4] -> [134, 576, 1464]

Parameters: 5000 - 16 (Time 6102.81 sec)

Average Path Length: 2.71812126265

Average Nodes Visited: 32.06

Total Failing Paths: [0.2, 0.3, 0.4] -> [0, 22, 92]