Computational Cost Data of Fast Predictive Molecular Dynamics Simulation Based on Multi-fidelity Physics Informed Neural Network

Mahmudul Islam1, Md Shajedul Hoque Thakur1, Satyajit Mojumder2 and Mohammad Nasim Hasan1,\*

1Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

2Theoretical and Applied Mechanics Program, Northwestern University, Evanston, IL-60208, USA

1. **Benchmark Study**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S1. One Component System** | | | | | | | | | | | | |
| **Temperature (K)** | **Density**  **(kgm-3)** | **Computation time (s)** | | **Total system energy (eV/atom)**  **(×10-5)** | | | **System pressure (bar)** | | | **Diffusion coefficient (/ps)** | | |
|  |  | **Low Fidelity** | **High Fidelity** | **Low Fidelity** | **High Fidelity** | **Error (%)** | **Low Fidelity** | **High Fidelity** | **Error (%)** | **Low Fidelity** | **High Fidelity** | **Error (%)** |
| 500 | 36.27 | 1 | 166 | 1.10 | 1.00 | 9.62 | 15.50 | 13.62 | 13.76 | 29.29 | 556.04 | 94.73 |
| 500 | 102.772 | 3 | 279 | 1.17 | 0.93 | 25.26 | 49.74 | 36.55 | 36.11 | 16.25 | 187.05 | 91.31 |
| 500 | 169.274 | 4 | 425 | 1.16 | 0.87 | 33.98 | 85.47 | 56.71 | 50.71 | 12.75 | 107.04 | 88.09 |
| 500 | 235.776 | 6 | 517 | 1.10 | 0.80 | 36.28 | 120.25 | 74.80 | 60.76 | 11.70 | 79.46 | 85.28 |
| 500 | 302.278 | 8 | 675 | 1.00 | 0.73 | 36.92 | 155.73 | 89.91 | 73.21 | 11.40 | 60.92 | 81.28 |
| 500 | 368.78 | 8 | 740 | 0.91 | 0.67 | 35.92 | 188.02 | 102.36 | 83.68 | 10.43 | 47.93 | 78.25 |
| 500 | 435.282 | 10 | 848 | 0.82 | 0.59 | 37.67 | 219.61 | 113.02 | 94.32 | 9.90 | 40.17 | 75.35 |
| 500 | 501.784 | 11 | 1031 | 0.73 | 0.51 | 43.32 | 251.69 | 119.42 | 110.76 | 10.42 | 37.35 | 72.11 |
| 500 | 568.286 | 23 | 1607 | 0.63 | 0.42 | 49.66 | 276.11 | 128.27 | 115.26 | 9.74 | 31.38 | 68.98 |
| 500 | 634.788 | 18 | 1876 | 0.52 | 0.33 | 59.56 | 299.28 | 138.25 | 116.48 | 9.70 | 26.00 | 62.70 |
| 500 | 701.29 | 16 | 2330 | 0.40 | 0.21 | 90.08 | 326.12 | 101.99 | 219.75 | 9.95 | 23.86 | 58.30 |
| 550 | 36.27 | 2 | 165 | 1.21 | 1.10 | 9.38 | 17.04 | 15.04 | 13.36 | 33.06 | 562.46 | 94.12 |
| 550 | 102.772 | 3 | 272 | 1.29 | 1.04 | 23.84 | 54.48 | 40.73 | 33.76 | 18.65 | 203.29 | 90.83 |
| 550 | 169.274 | 4 | 396 | 1.29 | 0.98 | 31.28 | 93.74 | 64.01 | 46.44 | 15.57 | 112.47 | 86.16 |
| 550 | 235.776 | 6 | 520 | 1.24 | 0.92 | 34.52 | 135.05 | 84.96 | 58.95 | 12.97 | 89.60 | 85.53 |
| 550 | 302.278 | 9 | 623 | 1.14 | 0.86 | 32.73 | 172.83 | 103.84 | 66.44 | 11.98 | 66.89 | 82.09 |
| 550 | 368.78 | 8 | 750 | 1.06 | 0.80 | 32.59 | 209.38 | 120.28 | 74.07 | 11.55 | 53.79 | 78.52 |
| 550 | 435.282 | 9 | 861 | 0.97 | 0.74 | 31.60 | 244.52 | 134.25 | 82.14 | 11.63 | 46.63 | 75.05 |
| 550 | 501.784 | 15 | 979 | 0.88 | 0.67 | 30.75 | 279.37 | 146.88 | 90.20 | 11.18 | 41.53 | 73.09 |
| 550 | 568.286 | 14 | 1053 | 0.77 | 0.60 | 27.11 | 310.08 | 157.14 | 97.32 | 11.19 | 35.55 | 68.54 |
| 550 | 634.788 | 23 | 1153 | 0.67 | 0.54 | 23.31 | 338.30 | 165.82 | 104.01 | 10.51 | 32.89 | 68.05 |
| 550 | 701.29 | 19 | 1275 | 0.54 | 0.47 | 17.07 | 364.41 | 169.53 | 114.95 | 10.48 | 29.32 | 64.27 |
| 600 | 36.27 | 2 | 167 | 1.32 | 1.21 | 8.87 | 18.49 | 16.45 | 12.36 | 35.77 | 617.13 | 94.20 |
| 600 | 102.772 | 3 | 285 | 1.41 | 1.15 | 22.68 | 59.44 | 44.93 | 32.30 | 20.80 | 226.84 | 90.83 |
| 600 | 169.274 | 4 | 380 | 1.42 | 1.09 | 30.38 | 102.71 | 71.13 | 44.40 | 17.08 | 138.65 | 87.68 |
| 600 | 235.776 | 6 | 496 | 1.37 | 1.04 | 32.58 | 145.12 | 95.18 | 52.47 | 14.26 | 93.66 | 84.78 |
| 600 | 302.278 | 14 | 611 | 1.28 | 0.98 | 31.37 | 188.31 | 117.21 | 60.66 | 13.93 | 75.65 | 81.58 |
| 600 | 368.78 | 9 | 784 | 1.19 | 0.92 | 29.59 | 230.75 | 137.43 | 67.91 | 13.24 | 61.47 | 78.46 |
| 600 | 435.282 | 17 | 801 | 1.11 | 0.86 | 29.21 | 271.46 | 155.92 | 74.11 | 12.89 | 53.29 | 75.81 |
| 600 | 501.784 | 10 | 1015 | 1.03 | 0.80 | 28.30 | 305.41 | 170.87 | 78.73 | 12.62 | 44.18 | 71.42 |
| 600 | 568.286 | 13 | 472 | 0.93 | 0.75 | 24.07 | 346.14 | 186.22 | 85.88 | 11.80 | 36.39 | 67.58 |
| 600 | 634.788 | 17 | 508 | 0.82 | 0.69 | 18.58 | 377.04 | 198.79 | 89.67 | 11.83 | 36.43 | 67.53 |
| 600 | 701.29 | 12 | 511 | 0.71 | 0.63 | 11.81 | 409.20 | 209.02 | 95.77 | 12.13 | 34.28 | 64.62 |
| 650 | 36.27 | 1 | 166 | 1.43 | 1.31 | 8.81 | 20.10 | 17.88 | 12.39 | 41.71 | 665.13 | 93.73 |
| 650 | 102.772 | 3 | 270 | 1.53 | 1.26 | 21.33 | 63.89 | 49.08 | 30.16 | 22.71 | 235.79 | 90.37 |
| 650 | 169.274 | 5 | 391 | 1.54 | 1.20 | 27.98 | 109.53 | 78.31 | 39.86 | 18.34 | 148.38 | 87.64 |
| 650 | 235.776 | 6 | 500 | 1.51 | 1.15 | 31.02 | 157.97 | 105.53 | 49.68 | 16.68 | 100.33 | 83.37 |
| 650 | 302.278 | 15 | 614 | 1.43 | 1.09 | 30.91 | 205.85 | 130.89 | 57.26 | 15.10 | 77.75 | 80.58 |
| 650 | 368.78 | 21 | 714 | 1.34 | 1.04 | 28.55 | 249.18 | 154.04 | 61.76 | 14.05 | 68.60 | 79.53 |
| 650 | 435.282 | 13 | 822 | 1.25 | 0.98 | 27.14 | 295.01 | 175.81 | 67.80 | 13.30 | 55.77 | 76.15 |
| 650 | 501.784 | 12 | 926 | 1.17 | 0.93 | 26.28 | 336.99 | 195.46 | 72.40 | 13.10 | 47.26 | 72.29 |
| 650 | 568.286 | 13 | 1027 | 1.07 | 0.88 | 22.63 | 379.84 | 213.64 | 77.79 | 12.99 | 43.28 | 69.98 |
| 650 | 634.788 | 17 | 1129 | 0.96 | 0.82 | 17.69 | 414.89 | 230.76 | 79.79 | 12.69 | 38.30 | 66.86 |
| 650 | 701.29 | 15 | 1228 | 0.85 | 0.77 | 10.79 | 453.07 | 244.73 | 85.13 | 13.01 | 34.39 | 62.16 |
| 700 | 36.27 | 1 | 168 | 1.53 | 1.42 | 7.67 | 21.45 | 19.33 | 10.97 | 45.89 | 703.50 | 93.48 |
| 700 | 102.772 | 3 | 278 | 1.64 | 1.36 | 20.42 | 68.49 | 53.20 | 28.75 | 24.28 | 250.03 | 90.29 |
| 700 | 169.274 | 4 | 444 | 1.68 | 1.31 | 28.26 | 119.66 | 85.20 | 40.44 | 20.67 | 151.15 | 86.33 |
| 700 | 235.776 | 5 | 566 | 1.64 | 1.26 | 29.85 | 168.51 | 115.57 | 45.81 | 18.35 | 109.16 | 83.19 |
| 700 | 302.278 | 7 | 681 | 1.57 | 1.20 | 30.19 | 221.09 | 143.86 | 53.69 | 16.92 | 85.35 | 80.18 |
| 700 | 368.78 | 8 | 724 | 1.48 | 1.15 | 28.42 | 271.00 | 170.32 | 59.11 | 15.39 | 68.95 | 77.68 |
| 700 | 435.282 | 9 | 816 | 1.39 | 1.10 | 26.61 | 319.68 | 196.10 | 63.02 | 15.29 | 62.24 | 75.44 |
| 700 | 501.784 | 12 | 1035 | 1.32 | 1.05 | 26.14 | 366.39 | 219.44 | 66.97 | 14.01 | 50.79 | 72.42 |
| 700 | 568.286 | 13 | 1027 | 1.23 | 1.00 | 22.79 | 411.45 | 242.10 | 69.95 | 14.88 | 45.53 | 67.32 |
| 700 | 634.788 | 22 | 1287 | 1.12 | 0.94 | 19.11 | 452.68 | 260.74 | 73.61 | 14.22 | 40.81 | 65.16 |
| 700 | 701.29 | 19 | 1233 | 1.00 | 0.89 | 12.11 | 493.39 | 281.79 | 75.09 | 14.25 | 37.23 | 61.73 |
| 750 | 36.27 | 1 | 169 | 1.64 | 1.52 | 7.57 | 22.99 | 20.77 | 10.70 | 49.11 | 795.34 | 93.83 |
| 750 | 102.772 | 3 | 275 | 1.76 | 1.47 | 19.92 | 73.41 | 57.35 | 28.00 | 28.28 | 272.94 | 89.64 |
| 750 | 169.274 | 4 | 388 | 1.80 | 1.42 | 26.75 | 126.94 | 92.16 | 37.74 | 22.22 | 172.56 | 87.13 |
| 750 | 235.776 | 6 | 554 | 1.78 | 1.37 | 30.01 | 181.80 | 125.41 | 44.96 | 19.53 | 114.25 | 82.91 |
| 750 | 302.278 | 7 | 660 | 1.71 | 1.32 | 29.92 | 238.18 | 156.82 | 51.87 | 17.95 | 91.27 | 80.34 |
| 750 | 368.78 | 17 | 713 | 1.62 | 1.26 | 28.63 | 292.56 | 186.76 | 56.65 | 17.15 | 74.92 | 77.11 |
| 750 | 435.282 | 10 | 810 | 1.55 | 1.21 | 27.46 | 345.20 | 215.33 | 60.31 | 15.74 | 64.71 | 75.68 |
| 750 | 501.784 | 11 | 997 | 1.46 | 1.16 | 25.36 | 395.00 | 242.17 | 63.10 | 16.07 | 54.69 | 70.61 |
| 750 | 568.286 | 14 | 1134 | 1.38 | 1.12 | 23.87 | 444.20 | 268.27 | 65.58 | 15.46 | 46.24 | 66.56 |
| 750 | 634.788 | 25 | 1103 | 1.27 | 1.07 | 19.27 | 492.44 | 292.21 | 68.52 | 14.98 | 44.79 | 66.56 |
| 750 | 701.29 | 15 | 1197 | 1.18 | 1.01 | 16.35 | 538.10 | 315.18 | 70.73 | 14.77 | 38.64 | 61.78 |
| 800 | 36.27 | 2 | 168 | 1.75 | 1.63 | 7.36 | 24.44 | 22.17 | 10.26 | 54.07 | 773.49 | 93.01 |
| 800 | 102.772 | 3 | 272 | 1.88 | 1.58 | 19.41 | 78.00 | 61.51 | 26.81 | 30.90 | 288.56 | 89.29 |
| 800 | 169.274 | 4 | 397 | 1.92 | 1.52 | 26.01 | 135.23 | 99.22 | 36.29 | 24.37 | 184.37 | 86.78 |
| 800 | 235.776 | 6 | 510 | 1.90 | 1.48 | 28.42 | 195.00 | 135.34 | 44.08 | 20.50 | 126.16 | 83.75 |
| 800 | 302.278 | 16 | 621 | 1.84 | 1.43 | 29.26 | 252.59 | 169.48 | 49.04 | 19.45 | 99.00 | 80.35 |
| 800 | 368.78 | 13 | 732 | 1.76 | 1.37 | 28.19 | 312.15 | 202.93 | 53.82 | 16.66 | 75.89 | 78.04 |
| 800 | 435.282 | 10 | 840 | 1.68 | 1.33 | 26.87 | 367.71 | 235.13 | 56.39 | 16.99 | 67.31 | 74.76 |
| 800 | 501.784 | 13 | 953 | 1.61 | 1.28 | 26.10 | 426.68 | 265.61 | 60.64 | 17.22 | 61.14 | 71.84 |
| 800 | 568.286 | 16 | 1058 | 1.52 | 1.23 | 24.07 | 478.74 | 294.52 | 62.55 | 16.42 | 52.76 | 68.89 |
| 800 | 634.788 | 14 | 1166 | 1.42 | 1.18 | 20.75 | 528.14 | 323.31 | 63.35 | 16.71 | 44.24 | 62.22 |
| 800 | 701.29 | 18 | 1273 | 1.31 | 1.13 | 15.53 | 578.32 | 350.37 | 65.06 | 16.53 | 41.42 | 60.09 |
| 850 | 36.27 | 2 | 169 | 1.85 | 1.73 | 7.09 | 25.86 | 23.55 | 9.77 | 60.56 | 877.28 | 93.10 |
| 850 | 102.772 | 3 | 147 | 1.99 | 1.68 | 18.07 | 81.95 | 65.67 | 24.78 | 31.67 | 285.22 | 88.90 |
| 850 | 169.274 | 4 | 394 | 2.05 | 1.63 | 25.83 | 145.05 | 106.10 | 36.71 | 25.06 | 189.25 | 86.76 |
| 850 | 235.776 | 6 | 536 | 2.04 | 1.59 | 28.39 | 206.83 | 145.31 | 42.33 | 22.23 | 128.75 | 82.73 |
| 850 | 302.278 | 7 | 649 | 1.99 | 1.53 | 29.49 | 270.85 | 182.35 | 48.53 | 20.49 | 100.57 | 79.63 |
| 850 | 368.78 | 16 | 752 | 1.91 | 1.49 | 28.45 | 332.61 | 219.45 | 51.56 | 18.69 | 85.46 | 78.13 |
| 850 | 435.282 | 16 | 838 | 1.83 | 1.44 | 26.99 | 393.87 | 254.62 | 54.69 | 18.07 | 72.14 | 74.95 |
| 850 | 501.784 | 10 | 924 | 1.75 | 1.39 | 25.62 | 451.06 | 287.96 | 56.64 | 16.84 | 60.87 | 72.33 |
| 850 | 568.286 | 15 | 1022 | 1.67 | 1.34 | 24.00 | 512.60 | 321.42 | 59.48 | 17.69 | 56.61 | 68.75 |
| 850 | 634.788 | 19 | 1036 | 1.57 | 1.30 | 20.82 | 566.24 | 353.70 | 60.09 | 17.56 | 50.35 | 65.12 |
| 850 | 701.29 | 15 | 1128 | 1.46 | 1.25 | 17.15 | 619.94 | 383.19 | 61.79 | 17.73 | 43.13 | 58.88 |
| 900 | 36.27 | 2 | 168 | 1.97 | 1.83 | 7.40 | 27.51 | 24.97 | 10.19 | 62.49 | 962.07 | 93.51 |
| 900 | 102.772 | 2 | 286 | 2.11 | 1.79 | 18.35 | 87.52 | 69.79 | 25.41 | 34.81 | 320.19 | 89.13 |
| 900 | 169.274 | 4 | 416 | 2.16 | 1.74 | 24.56 | 151.38 | 112.97 | 33.99 | 27.41 | 195.93 | 86.01 |
| 900 | 235.776 | 6 | 508 | 2.17 | 1.69 | 28.62 | 219.65 | 155.11 | 41.61 | 23.99 | 137.90 | 82.60 |
| 900 | 302.278 | 20 | 619 | 2.12 | 1.64 | 28.79 | 286.53 | 195.95 | 46.23 | 21.30 | 106.73 | 80.04 |
| 900 | 368.78 | 8 | 717 | 2.05 | 1.60 | 28.39 | 353.98 | 235.01 | 50.62 | 20.18 | 89.13 | 77.36 |
| 900 | 435.282 | 8 | 836 | 1.97 | 1.55 | 27.38 | 420.24 | 273.49 | 53.65 | 20.10 | 74.75 | 73.11 |
| 900 | 501.784 | 12 | 950 | 1.89 | 1.50 | 25.78 | 482.08 | 310.32 | 55.35 | 18.89 | 66.54 | 71.62 |
| 900 | 568.286 | 12 | 1028 | 1.82 | 1.45 | 25.07 | 550.22 | 347.16 | 58.49 | 18.11 | 58.63 | 69.10 |
| 900 | 634.788 | 14 | 1024 | 1.72 | 1.41 | 22.06 | 606.76 | 383.10 | 58.38 | 18.44 | 50.22 | 63.28 |
| 900 | 701.29 | 12 | 1374 | 1.60 | 1.36 | 17.70 | 665.07 | 418.03 | 59.09 | 17.37 | 47.06 | 63.09 |
| 950 | 36.27 | 2 | 169 | 2.06 | 1.94 | 6.49 | 28.81 | 26.44 | 8.96 | 64.37 | 956.47 | 93.27 |
| 950 | 102.772 | 3 | 268 | 2.23 | 1.89 | 17.83 | 92.12 | 73.89 | 24.67 | 36.74 | 345.24 | 89.36 |
| 950 | 169.274 | 4 | 395 | 2.29 | 1.84 | 24.38 | 159.50 | 119.87 | 33.06 | 29.11 | 209.16 | 86.08 |
| 950 | 235.776 | 6 | 505 | 2.29 | 1.80 | 27.38 | 228.91 | 164.72 | 38.97 | 24.96 | 151.73 | 83.55 |
| 950 | 302.278 | 7 | 652 | 2.26 | 1.75 | 29.17 | 301.41 | 208.75 | 44.39 | 22.95 | 109.92 | 79.12 |
| 950 | 368.78 | 7 | 751 | 2.19 | 1.70 | 28.32 | 373.43 | 251.10 | 48.72 | 21.21 | 97.90 | 78.34 |
| 950 | 435.282 | 10 | 810 | 2.11 | 1.66 | 27.38 | 446.08 | 292.61 | 52.45 | 20.20 | 80.76 | 74.99 |
| 950 | 501.784 | 9 | 955 | 2.03 | 1.61 | 26.25 | 510.94 | 333.75 | 53.09 | 19.77 | 70.67 | 72.03 |
| 950 | 568.286 | 13 | 1055 | 1.95 | 1.57 | 24.44 | 581.65 | 373.89 | 55.57 | 19.80 | 58.84 | 66.34 |
| 950 | 634.788 | 13 | 1232 | 1.87 | 1.52 | 23.21 | 647.42 | 412.57 | 56.92 | 19.98 | 56.99 | 64.94 |
| 950 | 701.29 | 14 | 1124 | 1.76 | 1.47 | 19.33 | 705.20 | 450.62 | 56.50 | 19.42 | 49.82 | 61.02 |
| 1000 | 36.27 | 2 | 170 | 2.17 | 2.04 | 6.48 | 30.35 | 27.82 | 9.09 | 70.39 | 952.68 | 92.61 |
| 1000 | 102.772 | 3 | 289 | 2.35 | 2.00 | 17.85 | 96.73 | 77.85 | 24.24 | 38.86 | 357.01 | 89.12 |
| 1000 | 169.274 | 4 | 419 | 2.41 | 1.95 | 23.56 | 167.63 | 126.73 | 32.27 | 30.83 | 217.64 | 85.83 |
| 1000 | 235.776 | 5 | 542 | 2.42 | 1.90 | 27.15 | 241.65 | 174.87 | 38.19 | 27.16 | 149.63 | 81.85 |
| 1000 | 302.278 | 13 | 647 | 2.39 | 1.86 | 28.71 | 319.31 | 221.58 | 44.10 | 23.24 | 118.40 | 80.37 |
| 1000 | 368.78 | 9 | 715 | 2.32 | 1.81 | 28.33 | 394.33 | 266.91 | 47.74 | 22.73 | 97.38 | 76.66 |
| 1000 | 435.282 | 10 | 807 | 2.24 | 1.77 | 27.07 | 470.02 | 312.44 | 50.43 | 23.33 | 82.89 | 71.85 |
| 1000 | 501.784 | 13 | 925 | 2.17 | 1.72 | 26.46 | 541.28 | 355.86 | 52.10 | 21.89 | 70.57 | 68.99 |
| 1000 | 568.286 | 12 | 1059 | 2.10 | 1.67 | 25.28 | 615.33 | 400.59 | 53.61 | 20.87 | 62.14 | 66.40 |
| 1000 | 634.788 | 14 | 1035 | 2.00 | 1.63 | 23.02 | 682.52 | 441.64 | 54.54 | 20.43 | 57.58 | 64.52 |
| 1000 | 701.29 | 14 | 1343 | 1.91 | 1.59 | 20.23 | 744.38 | 484.10 | 53.76 | 19.60 | 49.67 | 60.53 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S2. Two Components System** | | | | | | | | | | | | |  |  |  |
| **Temperature (K)** | **Density**  **(kgm-3)** | **Computation time (s)** | | **Total system energy (eV/atom)**  **(×10-5)** | | | **System pressure (bar)** | | | **Diffusion coefficient of A (/ps)** | | | **Diffusion coefficient of B (/ps)** | | |
| **Low Fidelity** | **High Fidelity** | **Low Fidelity** | **High Fidelity** | **Error (%)** | **Low Fidelity** | **High Fidelity** | **Error (%)** | **Low Fidelity** | **High Fidelity** | **Error (%)** | **Low Fidelity** | **High Fidelity** | **Error (%)** |
| 500 | 36.27 | 2 | 170 | 0.97 | 1.02 | 5.06 | 13.84 | 14.06 | 1.57 | 162.82 | 511.80 | 68.19 | 487.46 | 522.33 | 6.67 |
| 500 | 102.772 | 5 | 275 | 0.91 | 1.01 | 9.64 | 39.68 | 40.22 | 1.35 | 54.67 | 181.27 | 69.84 | 174.07 | 179.46 | 3.00 |
| 500 | 169.274 | 6 | 401 | 0.89 | 0.99 | 10.09 | 66.83 | 66.88 | 0.08 | 30.70 | 110.81 | 72.29 | 100.87 | 114.26 | 11.72 |
| 500 | 235.776 | 12 | 458 | 0.89 | 0.98 | 8.67 | 95.24 | 94.11 | 1.20 | 25.71 | 77.18 | 66.70 | 75.28 | 81.34 | 7.45 |
| 500 | 302.278 | 9 | 591 | 0.89 | 0.97 | 7.52 | 125.25 | 122.42 | 2.32 | 20.53 | 59.78 | 65.66 | 60.71 | 57.68 | 5.26 |
| 500 | 368.78 | 20 | 780 | 0.91 | 0.95 | 5.05 | 158.15 | 152.04 | 4.02 | 14.82 | 49.90 | 70.31 | 47.59 | 48.27 | 1.41 |
| 500 | 435.282 | 21 | 914 | 0.91 | 0.94 | 2.57 | 191.39 | 181.06 | 5.71 | 13.99 | 41.73 | 66.47 | 43.42 | 38.66 | 12.29 |
| 500 | 501.784 | 23 | 897 | 0.92 | 0.91 | 1.26 | 227.90 | 211.23 | 7.89 | 11.02 | 34.87 | 68.39 | 37.74 | 33.42 | 12.91 |
| 500 | 568.286 | 27 | 1147 | 0.93 | 0.90 | 3.71 | 264.67 | 242.66 | 9.07 | 10.46 | 31.98 | 67.30 | 32.08 | 30.51 | 5.16 |
| 500 | 634.788 | 31 | 1095 | 0.95 | 0.88 | 7.12 | 307.64 | 275.79 | 11.55 | 8.74 | 27.65 | 68.39 | 29.31 | 26.12 | 12.19 |
| 500 | 701.29 | 35 | 1059 | 0.95 | 0.86 | 10.36 | 350.35 | 310.75 | 12.75 | 9.26 | 25.63 | 63.89 | 29.60 | 23.59 | 25.49 |
| 550 | 36.27 | 3 | 170 | 1.08 | 1.13 | 4.25 | 15.26 | 15.50 | 1.50 | 172.55 | 577.98 | 70.15 | 542.14 | 606.49 | 10.61 |
| 550 | 102.772 | 4 | 278 | 1.03 | 1.11 | 7.18 | 43.79 | 44.37 | 1.29 | 64.27 | 197.19 | 67.41 | 197.88 | 189.38 | 4.49 |
| 550 | 169.274 | 6 | 362 | 1.01 | 1.10 | 7.55 | 73.77 | 73.84 | 0.09 | 36.81 | 104.22 | 64.68 | 121.49 | 126.18 | 3.72 |
| 550 | 235.776 | 11 | 519 | 1.01 | 1.08 | 6.29 | 105.47 | 104.35 | 1.08 | 27.68 | 86.18 | 67.88 | 86.26 | 81.74 | 5.53 |
| 550 | 302.278 | 9 | 672 | 1.02 | 1.06 | 4.11 | 138.54 | 135.06 | 2.58 | 21.72 | 69.17 | 68.61 | 62.83 | 58.95 | 6.58 |
| 550 | 368.78 | 17 | 787 | 1.03 | 1.07 | 3.93 | 173.60 | 169.21 | 2.60 | 16.63 | 51.00 | 67.40 | 56.01 | 53.95 | 3.82 |
| 550 | 435.282 | 20 | 803 | 1.04 | 1.04 | 0.39 | 210.95 | 201.35 | 4.77 | 13.48 | 42.87 | 68.56 | 44.58 | 42.19 | 5.66 |
| 550 | 501.784 | 25 | 900 | 1.04 | 1.02 | 2.53 | 251.46 | 235.30 | 6.87 | 13.10 | 35.36 | 62.96 | 41.94 | 39.50 | 6.18 |
| 550 | 568.286 | 27 | 990 | 1.05 | 1.01 | 4.76 | 293.35 | 270.90 | 8.29 | 11.83 | 35.02 | 66.23 | 39.75 | 32.25 | 23.26 |
| 550 | 634.788 | 31 | 1096 | 1.07 | 0.99 | 8.13 | 340.05 | 308.47 | 10.24 | 10.11 | 29.29 | 65.48 | 33.83 | 30.44 | 11.15 |
| 550 | 701.29 | 35 | 1299 | 1.09 | 0.97 | 11.49 | 389.76 | 347.80 | 12.06 | 9.29 | 26.46 | 64.89 | 30.68 | 26.53 | 15.64 |
| 600 | 36.27 | 2 | 162 | 1.19 | 1.23 | 3.41 | 16.70 | 16.91 | 1.24 | 191.60 | 613.73 | 68.78 | 571.41 | 675.99 | 15.47 |
| 600 | 102.772 | 3 | 247 | 1.15 | 1.22 | 5.74 | 47.91 | 48.51 | 1.22 | 70.76 | 206.79 | 65.78 | 222.63 | 208.10 | 6.98 |
| 600 | 169.274 | 5 | 399 | 1.13 | 1.20 | 5.69 | 80.91 | 81.03 | 0.14 | 38.01 | 120.09 | 68.35 | 125.59 | 128.93 | 2.59 |
| 600 | 235.776 | 12 | 460 | 1.13 | 1.19 | 4.96 | 114.97 | 114.56 | 0.36 | 30.40 | 93.54 | 67.50 | 98.58 | 94.88 | 3.90 |
| 600 | 302.278 | 9 | 599 | 1.14 | 1.17 | 2.53 | 151.81 | 148.38 | 2.31 | 23.03 | 68.84 | 66.54 | 72.10 | 71.25 | 1.20 |
| 600 | 368.78 | 20 | 795 | 1.15 | 1.16 | 1.03 | 191.16 | 184.68 | 3.51 | 18.93 | 53.34 | 64.51 | 59.39 | 54.69 | 8.60 |
| 600 | 435.282 | 20 | 916 | 1.16 | 1.14 | 1.30 | 231.43 | 220.78 | 4.82 | 16.45 | 44.34 | 62.90 | 54.27 | 43.80 | 23.90 |
| 600 | 501.784 | 22 | 897 | 1.17 | 1.13 | 3.58 | 275.57 | 260.04 | 5.97 | 13.56 | 40.52 | 66.54 | 44.68 | 38.38 | 16.43 |
| 600 | 568.286 | 27 | 1165 | 1.18 | 1.11 | 6.33 | 322.00 | 298.90 | 7.73 | 13.07 | 35.28 | 62.94 | 40.15 | 36.94 | 8.67 |
| 600 | 634.788 | 30 | 1266 | 1.20 | 1.10 | 9.24 | 374.01 | 341.55 | 9.50 | 10.96 | 32.69 | 66.47 | 37.66 | 31.03 | 21.36 |
| 600 | 701.29 | 33 | 1291 | 1.21 | 1.08 | 11.61 | 428.13 | 384.18 | 11.44 | 10.47 | 27.63 | 62.10 | 33.79 | 28.63 | 18.02 |
| 650 | 36.27 | 2 | 172 | 1.30 | 1.34 | 2.47 | 18.13 | 18.34 | 1.16 | 213.76 | 631.92 | 66.17 | 668.38 | 637.49 | 4.84 |
| 650 | 102.772 | 4 | 279 | 1.27 | 1.32 | 4.35 | 52.16 | 52.70 | 1.03 | 72.95 | 233.40 | 68.74 | 249.45 | 227.65 | 9.57 |
| 650 | 169.274 | 5 | 407 | 1.25 | 1.30 | 4.01 | 87.94 | 87.87 | 0.09 | 46.16 | 126.76 | 63.59 | 138.65 | 130.93 | 5.90 |
| 650 | 235.776 | 12 | 515 | 1.25 | 1.29 | 2.71 | 125.52 | 124.25 | 1.03 | 34.45 | 95.01 | 63.74 | 99.70 | 85.55 | 16.53 |
| 650 | 302.278 | 9 | 680 | 1.26 | 1.27 | 0.67 | 164.68 | 160.98 | 2.30 | 27.22 | 71.52 | 61.93 | 81.23 | 71.17 | 14.13 |
| 650 | 368.78 | 17 | 698 | 1.27 | 1.26 | 0.90 | 207.94 | 200.73 | 3.59 | 20.06 | 62.94 | 68.13 | 63.51 | 57.10 | 11.23 |
| 650 | 435.282 | 21 | 925 | 1.27 | 1.25 | 2.19 | 251.25 | 240.59 | 4.43 | 17.37 | 44.96 | 61.35 | 57.83 | 52.04 | 11.13 |
| 650 | 501.784 | 25 | 903 | 1.29 | 1.23 | 4.38 | 299.06 | 283.58 | 5.46 | 14.75 | 43.50 | 66.09 | 49.64 | 40.21 | 23.44 |
| 650 | 568.286 | 27 | 1175 | 1.30 | 1.22 | 6.28 | 348.36 | 327.48 | 6.38 | 15.45 | 35.40 | 56.36 | 42.63 | 35.87 | 18.84 |
| 650 | 634.788 | 31 | 1285 | 1.32 | 1.20 | 9.57 | 406.92 | 374.24 | 8.73 | 12.59 | 33.96 | 62.93 | 39.71 | 33.82 | 17.42 |
| 650 | 701.29 | 35 | 1063 | 1.33 | 1.19 | 11.78 | 465.86 | 422.58 | 10.24 | 11.40 | 29.25 | 61.03 | 37.73 | 28.79 | 31.04 |
| 700 | 36.27 | 2 | 160 | 1.41 | 1.44 | 1.97 | 19.55 | 19.75 | 1.01 | 211.07 | 585.76 | 63.97 | 753.02 | 742.00 | 1.49 |
| 700 | 102.772 | 4 | 250 | 1.38 | 1.43 | 3.32 | 56.24 | 56.85 | 1.07 | 88.01 | 238.34 | 63.07 | 258.09 | 247.41 | 4.32 |
| 700 | 169.274 | 5 | 369 | 1.37 | 1.41 | 3.20 | 94.88 | 95.05 | 0.17 | 50.37 | 132.10 | 61.87 | 149.29 | 135.06 | 10.54 |
| 700 | 235.776 | 11 | 457 | 1.37 | 1.40 | 2.02 | 135.21 | 134.32 | 0.66 | 35.69 | 98.43 | 63.74 | 107.80 | 96.72 | 11.45 |
| 700 | 302.278 | 10 | 676 | 1.38 | 1.40 | 1.47 | 178.00 | 176.09 | 1.09 | 29.91 | 79.51 | 62.39 | 92.30 | 78.91 | 16.97 |
| 700 | 368.78 | 17 | 696 | 1.39 | 1.37 | 1.20 | 224.52 | 218.06 | 2.96 | 23.21 | 63.25 | 63.31 | 71.18 | 63.68 | 11.77 |
| 700 | 435.282 | 21 | 929 | 1.39 | 1.36 | 2.69 | 271.10 | 262.53 | 3.26 | 20.45 | 53.33 | 61.65 | 60.67 | 54.29 | 11.76 |
| 700 | 501.784 | 22 | 902 | 1.41 | 1.34 | 5.33 | 324.54 | 307.94 | 5.39 | 16.10 | 44.54 | 63.84 | 53.49 | 42.66 | 25.38 |
| 700 | 568.286 | 28 | 996 | 1.42 | 1.33 | 7.00 | 376.23 | 355.35 | 5.87 | 17.31 | 39.52 | 56.20 | 49.86 | 36.75 | 35.65 |
| 700 | 634.788 | 31 | 1093 | 1.44 | 1.31 | 9.82 | 439.35 | 405.73 | 8.29 | 13.33 | 30.88 | 56.82 | 43.24 | 33.76 | 28.09 |
| 700 | 701.29 | 34 | 1303 | 1.46 | 1.30 | 12.15 | 501.24 | 458.06 | 9.43 | 12.02 | 31.28 | 61.56 | 41.79 | 31.34 | 33.34 |
| 750 | 36.27 | 2 | 173 | 1.52 | 1.54 | 1.51 | 20.98 | 21.19 | 0.98 | 263.51 | 710.41 | 62.91 | 754.18 | 716.36 | 5.28 |
| 750 | 102.772 | 4 | 248 | 1.49 | 1.53 | 2.60 | 60.43 | 61.05 | 1.02 | 82.53 | 255.43 | 67.69 | 280.57 | 238.55 | 17.62 |
| 750 | 169.274 | 6 | 408 | 1.48 | 1.51 | 2.11 | 101.80 | 101.94 | 0.14 | 52.57 | 140.83 | 62.67 | 154.59 | 148.09 | 4.39 |
| 750 | 235.776 | 12 | 459 | 1.48 | 1.51 | 1.48 | 145.32 | 144.68 | 0.45 | 40.03 | 99.03 | 59.58 | 124.87 | 105.54 | 18.31 |
| 750 | 302.278 | 9 | 596 | 1.49 | 1.47 | 1.20 | 191.51 | 187.32 | 2.23 | 30.14 | 84.69 | 64.41 | 100.59 | 82.85 | 21.41 |
| 750 | 368.78 | 20 | 793 | 1.50 | 1.46 | 2.94 | 241.03 | 233.36 | 3.29 | 25.68 | 67.58 | 62.00 | 78.23 | 64.00 | 22.24 |
| 750 | 435.282 | 20 | 919 | 1.51 | 1.46 | 3.54 | 291.91 | 281.86 | 3.56 | 21.04 | 55.69 | 62.23 | 67.34 | 53.36 | 26.21 |
| 750 | 501.784 | 24 | 1018 | 1.53 | 1.44 | 5.76 | 348.86 | 331.07 | 5.37 | 19.15 | 44.01 | 56.50 | 55.00 | 46.17 | 19.13 |
| 750 | 568.286 | 27 | 992 | 1.54 | 1.43 | 7.73 | 406.45 | 382.17 | 6.35 | 17.42 | 38.46 | 54.70 | 56.74 | 39.27 | 44.49 |
| 750 | 634.788 | 32 | 1106 | 1.56 | 1.42 | 9.80 | 471.44 | 438.23 | 7.58 | 13.75 | 38.45 | 64.25 | 49.26 | 34.37 | 43.33 |
| 750 | 701.29 | 33 | 1289 | 1.57 | 1.41 | 11.81 | 539.23 | 494.45 | 9.06 | 14.07 | 33.60 | 58.13 | 42.52 | 31.64 | 34.41 |
| 800 | 36.27 | 2 | 174 | 1.63 | 1.65 | 1.19 | 22.43 | 22.61 | 0.81 | 249.50 | 730.95 | 65.87 | 872.15 | 712.29 | 22.44 |
| 800 | 102.772 | 4 | 282 | 1.60 | 1.63 | 1.96 | 64.56 | 65.08 | 0.81 | 100.70 | 253.15 | 60.22 | 307.62 | 258.88 | 18.83 |
| 800 | 169.274 | 5 | 369 | 1.60 | 1.62 | 1.46 | 108.95 | 109.20 | 0.23 | 57.90 | 153.84 | 62.37 | 155.71 | 154.79 | 0.59 |
| 800 | 235.776 | 11 | 514 | 1.60 | 1.61 | 0.57 | 155.41 | 154.42 | 0.64 | 40.50 | 101.62 | 60.15 | 142.06 | 110.39 | 28.69 |
| 800 | 302.278 | 8 | 682 | 1.61 | 1.58 | 1.80 | 204.54 | 200.68 | 1.93 | 34.39 | 84.73 | 59.42 | 103.89 | 84.33 | 23.20 |
| 800 | 368.78 | 20 | 700 | 1.62 | 1.58 | 2.62 | 257.05 | 251.02 | 2.40 | 26.02 | 70.76 | 63.23 | 84.43 | 67.94 | 24.28 |
| 800 | 435.282 | 20 | 815 | 1.63 | 1.57 | 3.93 | 312.16 | 302.81 | 3.09 | 22.02 | 56.33 | 60.92 | 73.90 | 55.16 | 33.97 |
| 800 | 501.784 | 25 | 909 | 1.64 | 1.55 | 5.79 | 371.04 | 355.92 | 4.25 | 20.87 | 45.47 | 54.09 | 60.57 | 51.24 | 18.21 |
| 800 | 568.286 | 27 | 1189 | 1.66 | 1.54 | 7.48 | 432.53 | 410.44 | 5.38 | 19.84 | 41.36 | 52.04 | 60.88 | 40.86 | 48.99 |
| 800 | 634.788 | 31 | 1296 | 1.68 | 1.52 | 10.06 | 501.59 | 470.22 | 6.67 | 16.13 | 38.07 | 57.63 | 50.52 | 37.91 | 33.26 |
| 800 | 701.29 | 34 | 1061 | 1.70 | 1.52 | 11.88 | 574.57 | 531.63 | 8.08 | 16.05 | 34.64 | 53.68 | 46.66 | 36.03 | 29.50 |
| 850 | 36.27 | 2 | 172 | 1.73 | 1.75 | 0.98 | 23.85 | 24.00 | 0.63 | 273.72 | 755.00 | 63.75 | 914.40 | 732.21 | 24.88 |
| 850 | 102.772 | 4 | 249 | 1.71 | 1.74 | 1.44 | 68.71 | 69.21 | 0.73 | 98.07 | 265.90 | 63.12 | 348.31 | 249.93 | 39.36 |
| 850 | 169.274 | 6 | 366 | 1.71 | 1.72 | 0.90 | 115.88 | 115.98 | 0.09 | 56.68 | 156.06 | 63.68 | 192.89 | 158.30 | 21.85 |
| 850 | 235.776 | 10 | 462 | 1.71 | 1.71 | 0.23 | 165.53 | 164.18 | 0.82 | 47.91 | 106.58 | 55.05 | 146.77 | 113.49 | 29.33 |
| 850 | 302.278 | 8 | 678 | 1.72 | 1.69 | 2.02 | 217.37 | 214.25 | 1.46 | 33.55 | 81.67 | 58.93 | 115.86 | 89.82 | 28.99 |
| 850 | 368.78 | 20 | 794 | 1.73 | 1.68 | 3.22 | 273.05 | 267.24 | 2.17 | 27.89 | 74.18 | 62.40 | 89.62 | 68.47 | 30.88 |
| 850 | 435.282 | 20 | 800 | 1.75 | 1.67 | 4.64 | 332.42 | 322.23 | 3.16 | 24.24 | 64.99 | 62.71 | 83.66 | 58.84 | 42.18 |
| 850 | 501.784 | 24 | 1008 | 1.76 | 1.66 | 6.11 | 395.31 | 379.34 | 4.21 | 23.00 | 46.70 | 50.76 | 72.82 | 48.00 | 51.70 |
| 850 | 568.286 | 26 | 1190 | 1.77 | 1.65 | 7.47 | 460.89 | 438.90 | 5.01 | 19.41 | 43.22 | 55.08 | 62.92 | 45.33 | 38.79 |
| 850 | 634.788 | 31 | 1104 | 1.80 | 1.63 | 9.88 | 535.36 | 502.00 | 6.65 | 16.35 | 39.44 | 58.55 | 54.34 | 37.36 | 45.47 |
| 850 | 701.29 | 36 | 1057 | 1.81 | 1.62 | 11.82 | 611.05 | 567.13 | 7.75 | 15.83 | 36.46 | 56.59 | 50.44 | 34.27 | 47.17 |
| 900 | 36.27 | 2 | 162 | 1.84 | 1.85 | 0.73 | 25.29 | 25.41 | 0.47 | 293.42 | 784.18 | 62.58 | 927.10 | 804.44 | 15.25 |
| 900 | 102.772 | 3 | 281 | 1.82 | 1.84 | 1.15 | 72.79 | 73.36 | 0.78 | 104.24 | 264.23 | 60.55 | 367.90 | 276.78 | 32.92 |
| 900 | 169.274 | 5 | 367 | 1.82 | 1.83 | 0.61 | 123.05 | 123.20 | 0.12 | 68.00 | 170.26 | 60.06 | 203.15 | 170.63 | 19.06 |
| 900 | 235.776 | 11 | 523 | 1.82 | 1.83 | 0.22 | 175.18 | 174.92 | 0.15 | 48.81 | 113.88 | 57.14 | 159.03 | 124.68 | 27.55 |
| 900 | 302.278 | 9 | 603 | 1.84 | 1.78 | 2.85 | 230.83 | 226.92 | 1.72 | 40.03 | 88.63 | 54.84 | 131.95 | 89.22 | 47.89 |
| 900 | 368.78 | 18 | 699 | 1.85 | 1.80 | 2.93 | 289.87 | 285.21 | 1.63 | 31.30 | 70.71 | 55.73 | 102.13 | 71.28 | 43.28 |
| 900 | 435.282 | 20 | 932 | 1.86 | 1.77 | 5.04 | 351.33 | 341.23 | 2.96 | 27.67 | 64.64 | 57.20 | 86.84 | 58.21 | 49.19 |
| 900 | 501.784 | 23 | 1023 | 1.88 | 1.76 | 6.50 | 419.58 | 402.90 | 4.14 | 21.91 | 53.48 | 59.04 | 71.86 | 53.59 | 34.09 |
| 900 | 568.286 | 27 | 1004 | 1.89 | 1.75 | 7.97 | 489.49 | 466.15 | 5.01 | 21.05 | 44.82 | 53.04 | 70.46 | 41.91 | 68.12 |
| 900 | 634.788 | 31 | 1291 | 1.92 | 1.74 | 10.03 | 568.39 | 533.55 | 6.53 | 18.20 | 41.14 | 55.75 | 57.88 | 41.43 | 39.72 |
| 900 | 701.29 | 33 | 1063 | 1.93 | 1.73 | 11.71 | 647.71 | 602.95 | 7.42 | 16.25 | 34.67 | 53.13 | 56.85 | 36.88 | 54.12 |
| 950 | 36.27 | 2 | 161 | 1.94 | 1.96 | 0.74 | 26.69 | 26.88 | 0.68 | 333.27 | 861.78 | 61.33 | 1130.18 | 819.00 | 38.00 |
| 950 | 102.772 | 4 | 284 | 1.93 | 1.95 | 0.81 | 76.93 | 77.53 | 0.76 | 108.97 | 270.20 | 59.67 | 377.79 | 300.58 | 25.69 |
| 950 | 169.274 | 5 | 366 | 1.93 | 1.93 | 0.13 | 129.92 | 130.13 | 0.16 | 71.69 | 157.43 | 54.46 | 219.56 | 165.63 | 32.56 |
| 950 | 235.776 | 11 | 522 | 1.94 | 1.92 | 0.74 | 184.96 | 184.40 | 0.30 | 53.17 | 120.77 | 55.97 | 167.70 | 119.93 | 39.83 |
| 950 | 302.278 | 9 | 679 | 1.95 | 1.89 | 2.83 | 243.50 | 240.52 | 1.24 | 40.03 | 93.29 | 57.08 | 129.37 | 89.98 | 43.77 |
| 950 | 368.78 | 17 | 702 | 1.96 | 1.90 | 3.08 | 306.97 | 301.10 | 1.95 | 32.90 | 73.16 | 55.03 | 109.59 | 72.91 | 50.31 |
| 950 | 435.282 | 21 | 816 | 1.98 | 1.88 | 5.00 | 372.70 | 362.30 | 2.87 | 28.01 | 62.28 | 55.03 | 95.94 | 63.76 | 50.47 |
| 950 | 501.784 | 23 | 1026 | 2.00 | 1.87 | 6.59 | 442.87 | 427.39 | 3.62 | 24.64 | 53.62 | 54.05 | 81.87 | 52.88 | 54.81 |
| 950 | 568.286 | 27 | 1187 | 2.01 | 1.86 | 7.77 | 516.83 | 492.86 | 4.86 | 23.78 | 49.72 | 52.19 | 74.15 | 46.67 | 58.87 |
| 950 | 634.788 | 30 | 1297 | 2.03 | 1.85 | 9.86 | 600.13 | 566.36 | 5.96 | 20.10 | 41.02 | 51.00 | 65.60 | 43.14 | 52.08 |
| 950 | 701.29 | 35 | 1316 | 2.05 | 1.84 | 11.53 | 683.46 | 638.94 | 6.97 | 18.64 | 38.36 | 51.41 | 58.30 | 35.53 | 64.07 |
| 1000 | 36.27 | 2 | 164 | 2.05 | 2.06 | 0.49 | 28.13 | 28.30 | 0.58 | 331.92 | 840.12 | 60.49 | 1131.08 | 852.24 | 32.72 |
| 1000 | 102.772 | 4 | 288 | 2.04 | 2.05 | 0.57 | 81.13 | 81.66 | 0.65 | 128.13 | 293.32 | 56.32 | 410.84 | 289.16 | 42.08 |
| 1000 | 169.274 | 5 | 404 | 2.04 | 2.04 | 0.07 | 136.66 | 137.28 | 0.46 | 74.46 | 175.25 | 57.51 | 248.06 | 178.62 | 38.87 |
| 1000 | 235.776 | 12 | 463 | 2.05 | 2.02 | 1.51 | 195.07 | 194.21 | 0.44 | 55.31 | 122.97 | 55.02 | 185.65 | 120.75 | 53.75 |
| 1000 | 302.278 | 7 | 601 | 2.06 | 2.01 | 2.66 | 256.76 | 253.77 | 1.18 | 41.02 | 94.85 | 56.75 | 137.79 | 94.03 | 46.54 |
| 1000 | 368.78 | 17 | 700 | 2.08 | 2.01 | 3.32 | 323.45 | 317.88 | 1.75 | 32.85 | 77.40 | 57.56 | 104.46 | 81.67 | 27.91 |
| 1000 | 435.282 | 19 | 935 | 2.09 | 1.99 | 4.91 | 391.88 | 381.87 | 2.62 | 31.32 | 66.92 | 53.20 | 89.36 | 68.03 | 31.36 |
| 1000 | 501.784 | 23 | 907 | 2.11 | 1.98 | 6.54 | 467.74 | 451.44 | 3.61 | 27.04 | 55.32 | 51.12 | 84.50 | 58.50 | 44.43 |
| 1000 | 568.286 | 26 | 1171 | 2.13 | 1.97 | 7.99 | 544.59 | 520.60 | 4.61 | 24.58 | 50.73 | 51.55 | 84.05 | 46.16 | 82.07 |
| 1000 | 634.788 | 32 | 1106 | 2.15 | 1.96 | 9.64 | 630.31 | 597.20 | 5.54 | 22.06 | 47.54 | 53.59 | 61.23 | 45.10 | 35.77 |
| 1000 | 701.29 | 33 | 1074 | 2.17 | 1.95 | 11.19 | 717.14 | 675.99 | 6.09 | 19.22 | 41.39 | 53.55 | 64.31 | 39.71 | 61.94 |