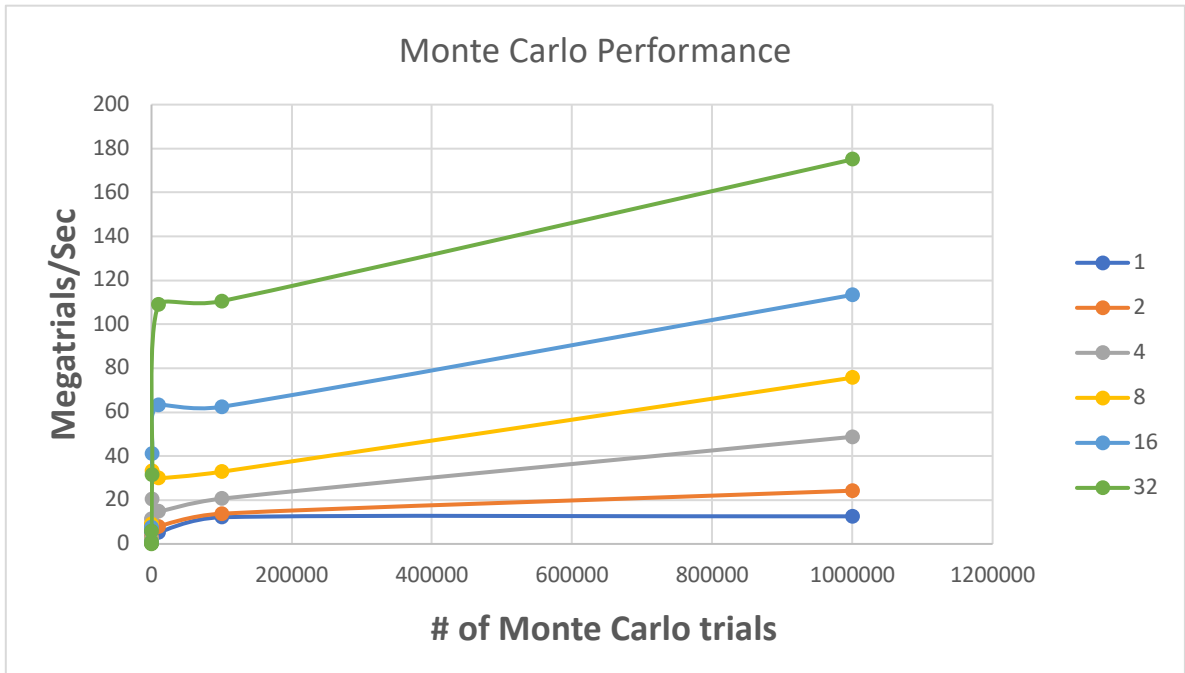
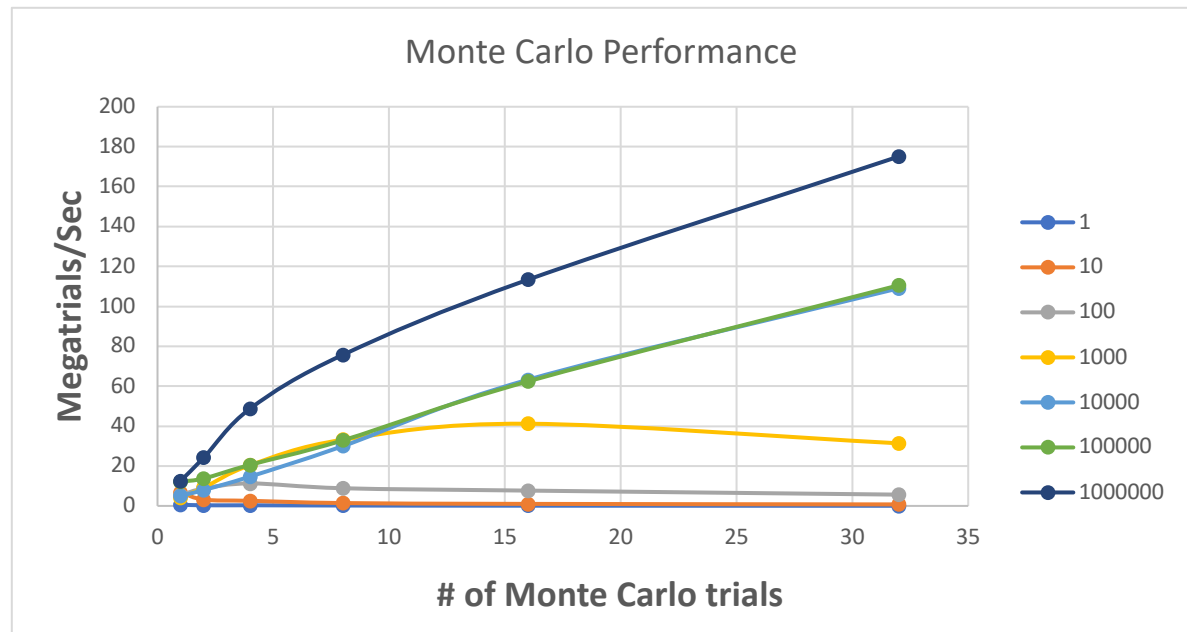


Monte Carlo Simulation

|    | 1    | 10   | 100   | 1000  | 10000  | 100000 | 1000000 |
|----|------|------|-------|-------|--------|--------|---------|
| 1  | 0.62 | 6.78 | 5.44  | 4.09  | 5.07   | 12.14  | 12.56   |
| 2  | 0.3  | 3.15 | 8.72  | 9.2   | 7.96   | 13.77  | 24.23   |
| 4  | 0.32 | 2.55 | 11.26 | 20.41 | 14.71  | 20.6   | 48.76   |
| 8  | 0.19 | 1.43 | 8.85  | 33.12 | 29.94  | 32.85  | 75.68   |
| 16 | 0.1  | 1.01 | 7.67  | 41.17 | 63.25  | 62.41  | 113.38  |
| 32 | 0.06 | 0.75 | 5.65  | 31.36 | 109.03 | 110.53 | 175.05  |





Estimated Probability: 6.60%

Speedup =  $(113.38 / 12.56) = 9.027$

(Performance with sixteen threads) / (Performance with one thread)

Parallel Fraction:  $(16 / (16-1)) * (1 - (1 / 9.027)) = 0.948$