CS 475

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Kyle Huang

Project 0

1. What machine did you run this on?

Windows 10 machine running on Intel I9 9900k at 5.1GHz.

1. What performance results did you get?

1 thread: 681.16 MegaMults/Sec

4 threads: 2611/65 MegaMults/Sec

1. What was your 4-thread-to-one-thread speedup?

S = 3.834.

1. If the 4-thread-to-one-thread speedup is less than 4.0, why do you think it is this way?

I think that the 4-thread-to-one-thread speedup is slightly less than 4 because there is diminished results when adding more threads. I can see this when I tested 16 threads and only got 2938.5 MegaMults/Sec. This makes it seem like performance increase is a logarithmic function relative to the additional threads.

1. What was your Parallel Fraction, Fp?

Fp = 0.985579.