

CS 475

4/1/2021

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Project 0

1. What machine did you run this on?
Windows 10 machine running on Intel I9 9900k at 5.1GHz.
2. What performance results did you get?
1 thread: 681.16 MegaMults/Sec
4 threads: 2611/65 MegaMults/Sec
3. What was your 4-thread-to-one-thread speedup?
 $S = 3.834$.
4. 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.
5. What was your Parallel Fraction, F_p ?
 $F_p = 0.985579$.