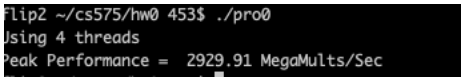
Danlin Song
songdan@oregonstate.edu
Project 0: Simple OpenMP Experiment

1. Tell what machine you ran this on
   OS: macOS
   Memory: 8GB
   Processor: Apple M1
2. What performance results did you get?
   Using 1 thread, Peak performance = 1083.64 MegaMults/Sec.

   Using 4 thread, Peak performance = 2929.91 MegaMults/Sec.



3. What was your 4-thread-to-one-thread speedup?
   S=P4/P1=2.7038
4. If the 4-thread-to-one-thread speedup is less than 4.0, why do you think it is this way?

When work is split, four threads perform better than one because it is done simultaneously and in parallel. But performance does not always increase with the number of threads, because switching between many threads consumes more time. Therefore, performance will not be linearly related to the number of threads.

5. What was your Parallel Fraction, Fp?
   Fp = (4./3.)*(1.-(1./S))=0.8402