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CS475 – Spring 2018
Project 0

1. This project was run on Linux (Flip). I compiled with g++ -o proj0 proj0.c -lm -fopenmp. I ran these tests at 7am PDT so uptime was low on the server.

2. Performance Results:

ARRAYSIZE = 1048576
NUMTRIES = 10

NUMT	Peak Performance	Average Performance
1	172.02	165.23
4	680.80	648.74

3. 4-thread-to-one-thread speedup (using average performance)

S = 648.74 / 165.23 = **3.93**

4. The performance is increasing with a greater amount of threads because it is dividing the work and increasing the efficiency of the program significantly.

5. Parallel Fraction

Fp = (4/3) * (1 – (1/3.93) = **0.994**