Dylan Washburne
Project 0

I ran these tests on my personal laptop. It is a fairly weak computer by my standards, as I use it almost entirely because it is smaller than my desktop. Thus, it is used on-campus for general purposes.

With an arraysize of 2 million, performing 100 trials:
Using a single thread, I got:

Peak:	425.53 Mega Multiples per Second
Average:	314.48 Mega Multiples per Second
Time:	6.537 Seconds

Using 4 threads, I got:

Peak:	1333.35 Mega Multiples per Second
Average:	760.57 Mega Multiples per Second
Time:	2.971 Seconds

My 4 thread to 1 thread speedup was:
6.537 / 2.971 = 2.200 times faster
or
760.57 / 314.48 = 2.41 times faster
I will adhere to the first result as the actual value of S for future problems.

I believe it is behaving this way because, while the parallel processing is faster, there are limits to its gain by some computations taking longer, or having one thread finish before the others and having nothing to do until the process is complete.

Fp:
(4/3)*(1-(1/2.200) = 0.727