

1. Tell what machine you ran this on

This experiment was conducted on a Lenovo G50 Laptop. Below are the product specifications

OS: Windows 10 home

Processor: Intel Core i3 – 4030U CPU @ 1.90 GHz

Installed RAM: 4 GB

System type: 64 bit operating system

In addition, I ran the program in Visual Studio 2017

Array size: 100 million

Number of tries: 10

2. What performance results did you get?

	1 Thread	4 thread	
Peak Performance	220.45	481.95	MegaMults/Sec
average performance	185.82	399.98	MegaMults/Sec

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

Peak performance S=	2.18621
average performance S=	2.15251

4. Why do you think it is behaving this way?

I think these results are based on the processor in the operating system, as well as the additional applications running and Visual Studio. While the laptop isn't that old, I do think the age and processing speed will have an impact on the peak and average performance. I also had Google Chrome, and an anti-virus scan running in the background. Finally, I've noticed a slight slowdown in performance after installing VS on this laptop

5. What was your Parallel Fraction, F_p ?

Peak performance S=	0.7234
average performance S=	0.7139