

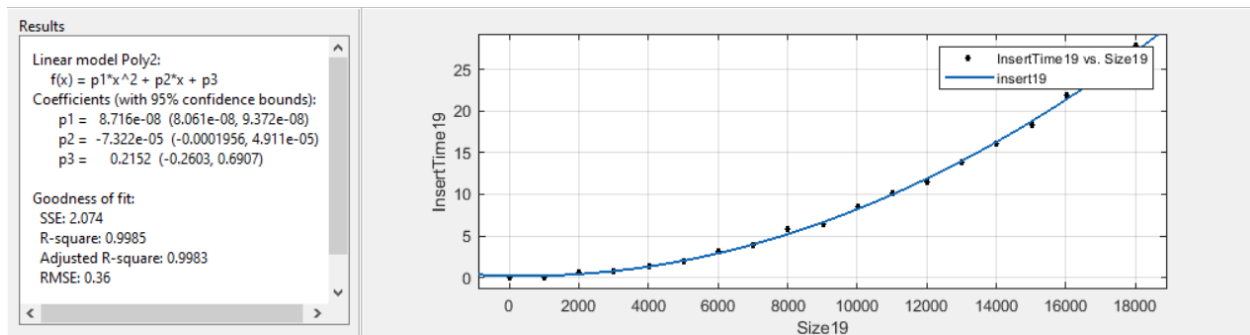
4)

	A	B	C	D
1	Size	InsertionSort	MergeSort	Time
2	10	4.79E-05	5.48E-05	
3	1010	0.086691	0.011223	
4	2010	0.578777	0.025446	
5	3010	0.822145	0.039082	
6	4010	1.334009	0.054381	
7	5010	1.982319	0.070989	
8	6010	3.212084	0.088778	
9	7010	3.943529	0.10659	
10	8010	5.772657	0.094693	
11	9010	6.416014	0.105107	
12	10010	8.451242	0.119835	
13	11010	10.14398	0.13446	
14	12010	11.47924	0.127545	
15	13010	13.78909	0.122003	
16	14010	16.03571	0.138287	
17	15010	18.24634	0.149302	
18	16010	21.81864	0.163286	
19	17010	23.70949	0.179669	
20	18010	27.85976	0.195676	

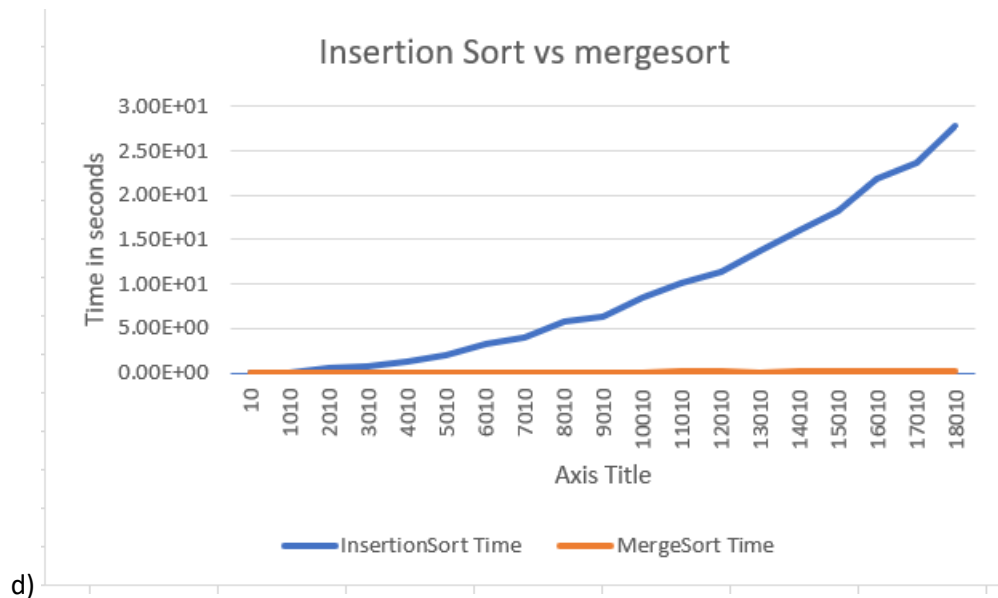
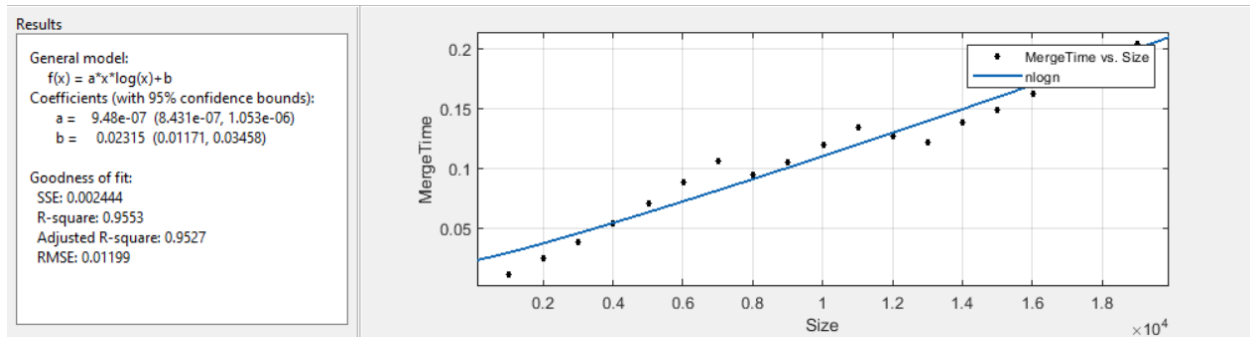
b)

c)

Insertion Sort



Merge sort



d)

e) Taking the Average Time of all samples done and plotted on each theoretical computation of each running time of each algorithm was closer that what I expected. Both points plotted with the graph had over 95% correlation.