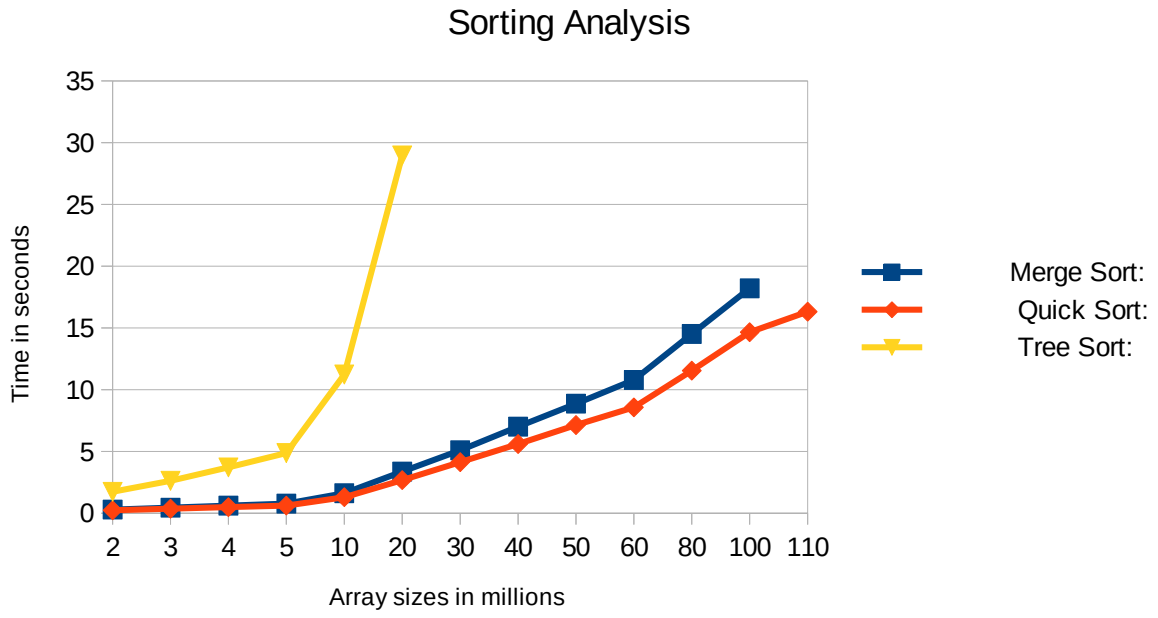
Sorting Analysis Homework 10 – By: Cole Barbes

Number Of Elements	Merge Sort:	Quick Sort:	Tree Sort:
1	0.141085	0.113655	0.754421
2	0.295773	0.238601	1.73706
3	0.448699	0.367297	2.62528
4	0.613594	0.494147	3.71019
5	0.778229	0.622359	4.86731
10	1.61812	1.30042	11.2327
20	3.37018	2.68366	28.9634
30	5.09888	4.13965	
40	7.01058	5.60448	
50	8.87332	7.13604	
60	10.7855	8.57178	
80	14.5143	11.5444	
100	18.203	14.657	
110		16.3161	



The Quick sort is consistently better than the other methods. The lines don't seem to cross at any point. The tree sort seems to be consistently slower than both of the other algorithms. This would probably be because of how many times it recurses. The merge sort seems to be consistently between the two because it has so many steps to work through. The quick sort by far is the fastest of all the algorithms. The merge sort and the quick sort are both pretty similar in their speeds none the less. Its interesting that the tree sort is as slow as it is, I would have thought it was a little faster. However, on further assessment it seems to be much slower, even from a code perspective the steps are more complex here.