SelectionSort Method

Number of Objects	How Long It Took
10	0.9877 milliseconds
30	1.3363 milliseconds
100	1.0973 milliseconds
300	1.8042 milliseconds
500	2.3882 milliseconds
800	5.0032 milliseconds
1000	4.4225 milliseconds
(did two more tests)	5.0399 milliseconds
	4.1378 milliseconds

I do think that the conclusions from class are correct. There is an increase in time as the number of objects that are being sorted are increasing. But they did increase at different rates. The time that it took to sort 30 objects was longer than 100 objects. But, the time it took to sort 300 objects was still greater than 100 objects. I did numerous tests for 1000 objects, because the time that it took to sort 1000 objects took less time than 800, which is why I ran the test again. It took slightly longer the second time, but then short the third. So the rate that the time increases at is definitely inconsistent, but it still increases as the number of objects increases.

QuickSort Method

Number of Objects	How Long It Took
10	0.006199 milliseconds
30	0.008799 milliseconds
100	0.0401 milliseconds
300	0.136 milliseconds
500	0.1741 milliseconds
800	0.9122 milliseconds

1000	0.3954 milliseconds

This method increased similarly to the SelectionSort method. Although it did not increase at a consistent rate, it did increase as the number of objects increased. When I tested the length of time for 1000 objects, it took less time than 800 objects. That seemed to be the only outlier in this data set.

LinearSearch Method

Number of Objects	How Long It Took
10	0.0024 milliseconds
30	0.002 milliseconds
100	0.002999 milliseconds
300	0.001501 milliseconds
500	0.006099 milliseconds
800	0.002399 milliseconds
1000	0.001501 milliseconds

This method does not seem to increase in time in the same way that the SelectionSort or QuickSort method did. The longest the method took was when it sorted 500 objects, which was not even the maximum amount of objects that I tested. This method definitely did not support the idea that as the number of objects increases, the longer it takes to sort, which was the algorithm analysis conclusion from class.