

Lab 6

Selection Sort		
List Size	Comparisons	Time (seconds)
1,000 (observed)		
2,000 (observed)		
4,000 (observed)		
8,000 (observed)		
16,000 (observed)		
32,000 (observed)		
100,000 (estimated)		
500,000 (estimated)		
1,000,000 (estimated)		
10,000,000 (estimated)		

Insertion Sort		
List Size	Comparisons	Time (seconds)
1,000 (observed)		
2,000 (observed)		
4,000 (observed)		
8,000 (observed)		
16,000 (observed)		
32,000 (observed)		
100,000 (estimated)		
500,000 (estimated)		
1,000,000 (estimated)		
10,000,000 (estimated)		

1. Which sort do you think is better? Why?
2. Which sort is better when sorting a list that is already sorted (or mostly sorted)? Why?
3. You probably found that insertion sort had about half as many comparisons as selection sort. Why? Why are the times for insertion sort not half what they are for selection sort? (For part of the answer, think about what insertion sort has to do more of compared to selection sort.)