

Question 1:

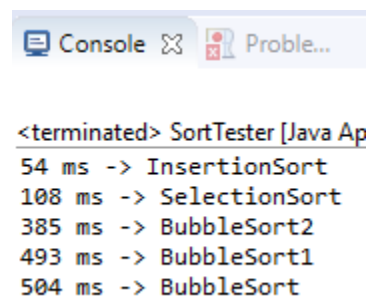
Best Case: The best case would be if the list were already sorted. a) there will be comparisons as it is but no exchanges and execution time is in $O(n^2)$ b) But if we keep a track of exchanges in each pass and terminate the program checking if no exchanges. Then the program would require only one pass and max. $(n-1)$ comparisons are required in that single pass and we can say that the complexity is of order of $O(n)$.

Question 2:

In java source

Question 3:

Here is the result



```
<terminated> SortTester [Java Ap
54 ms -> InsertionSort
108 ms -> SelectionSort
385 ms -> BubbleSort2
493 ms -> BubbleSort1
504 ms -> BubbleSort
```