

S21: Sorting Algorithms

Bubble Sort

For each set of data, write out each pass of **bubble sort**.

1. Sort in descending order, beginning at the front: **4 points possible**
56, 1, 23, 10, 7, 15, 11, 4
2. Sort in ascending order starting at the back (assume the “bigger” is determined by the compareTo method): **5 points possible**
“Hello”, “world!”, “computer”, “science”, “ROCKS!”, “woot!”

Selection Sort

For each set of data, write out each pass of **selection sort**.

3. Sort in descending order, selecting the max each time: 56, 1, 23, 10, 7, 15, 11, 4
7 points possible

4. Sort in ascending order, selecting the minimum each time: **5 points possible**
“Hello”, “world!”, “computer”, “science”, “ROCKS!”, “woot!”

Insertion Sort

For each data set, write out each pass of **insertion sort**.

5. Sort in ascending order, beginning from the front: 56, 1, 23, 10, 7, 15, 11, 4
7 points possible

6. Sort in ascending order, beginning from the back. : **5 points possible**
“Hello”, “world!”, “computer”, “science”, “ROCKS!”, “woot!”