1)

- dregan17@Danny-Mac Week 3 % /opt/homebrew/bin/python3
  "/Users/dregan17/Desktop/MC Code/6013 Algorithms and Discrete
  Structures/Week 3/bubble-sort.py"
Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [44, 63, 77, 17, 20, 99, 84, 6, 39, 52]
Elements have been compared 9 times.
Elements have been swapped 6 times.
Current array: [44, 63, 17, 20, 77, 84, 6, 39, 52, 99]
Elements have been compared 17 times.
Elements have been swapped 11 times.
Current array: [44, 17, 20, 63, 77, 6, 39, 52, 84, 99]
Elements have been compared 24 times.
Elements have been swapped 16 times.
Current array: [17, 20, 44, 63, 6, 39, 52, 77, 84, 99]
Elements have been compared 30 times.
Elements have been swapped 19 times.
Current array: [17, 20, 44, 6, 39, 52, 63, 77, 84, 99]
Elements have been compared 35 times.
Elements have been swapped 21 times.
Current array: [17, 20, 6, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 39 times.
Elements have been swapped 22 times.
Current array: [17, 6, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 42 times.
Elements have been swapped 23 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 44 times.
Elements have been swapped 23 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Final array = [6], [17], [20]...[77], [84], [99]

Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [52, 84, 6, 39, 20, 77, 17, 99, 44, 63]
Elements have been compared 9 times.
Elements have been swapped 7 times.
Current array: [52, 6, 39, 20, 77, 17, 84, 44, 63, 99]
Elements have been compared 17 times.
Elements have been swapped 13 times.
Current array: [6, 39, 20, 52, 17, 77, 44, 63, 84, 99]
Elements have been compared 24 times.
Elements have been swapped 17 times.

```
Current array: [6, 20, 39, 17, 52, 44, 63, 77, 84, 99]
Elements have been compared 30 times.
Elements have been swapped 19 times.
Current array: [6, 20, 17, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 35 times.
Elements have been swapped 20 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 39 times.
Elements have been swapped 20 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
```
Final array = [6], [17], [20]...[77], [84], [99]


```
Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 9 times.
Elements have been swapped 0 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
```
Final array = [6], [17], [20]...[77], [84], [99]

2)

- dregan17@Danny-Mac Week 3 % /opt/homebrew/bin/python3
  "/Users/dregan17/Desktop/MC Code/6013 Algorithms and Discrete
  Structures/Week 3/bubble-sort.py"

Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [44, 63, 77, 17, 20, 99, 84, 6, 39, 52]
Elements have been compared 9 times.
Elements have been swapped 6 times.
Current array: [44, 63, 17, 20, 77, 84, 6, 39, 52, 99]
Elements have been compared 17 times.
Elements have been swapped 11 times.
Current array: [44, 17, 20, 63, 77, 6, 39, 52, 84, 99]
Elements have been compared 24 times.
Elements have been swapped 16 times.
Current array: [17, 20, 44, 63, 6, 39, 52, 77, 84, 99]
Elements have been compared 30 times.
Elements have been swapped 19 times.
Current array: [17, 20, 44, 6, 39, 52, 63, 77, 84, 99]
Elements have been compared 35 times.
Elements have been swapped 21 times.
Current array: [17, 20, 6, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 39 times.
Elements have been swapped 22 times.
Current array: [17, 6, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 42 times.
Elements have been swapped 23 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 44 times.
Elements have been swapped 23 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Final array = [6], [17], [20]...[77], [84], [99]

Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [52, 84, 6, 39, 20, 77, 17, 99, 44, 63]
Elements have been compared 9 times.
Elements have been swapped 7 times.
Current array: [52, 6, 39, 20, 77, 17, 84, 44, 63, 99]
Elements have been compared 17 times.
Elements have been swapped 13 times.
Current array: [6, 39, 20, 52, 17, 77, 44, 63, 84, 99]
Elements have been compared 24 times.
Elements have been swapped 17 times.

```
Current array: [6, 20, 39, 17, 52, 44, 63, 77, 84, 99]
Elements have been compared 30 times.
Elements have been swapped 19 times.
Current array: [6, 20, 17, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 35 times.
Elements have been swapped 20 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 39 times.
Elements have been swapped 20 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
```
Final array = [6], [17], [20]...[77], [84], [99]


```
Elements have been compared 0 times.
Elements have been swapped 0 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
Elements have been compared 9 times.
Elements have been swapped 0 times.
Current array: [6, 17, 20, 39, 44, 52, 63, 77, 84, 99]
```
Final array = [6], [17], [20]...[77], [84], [99]