

This is a **written assignment** for unit VIII. Write your answers on this page or another piece of paper and turn it in IN CLASS ON DEC 7. This assignment is worth **3 points**.

Look at the class web page for **November 30**. There you will find lecture notes and code posted for the four sorting algorithms that we discussed in class. Refer to these materials to help you complete this assignment.

1. Given the following definitions:

```
const int NUM_ITEMS = 5;
string items[NUM_ITEMS];
```

```
void initItems() {
    items[0] = "please";
    items[1] = "my";
    items[2] = "dear";
    items[3] = "aunt";
    items[4] = "sally";
} // end of initItems()
```

Show the contents of the *auxiliary array* in the **selection sort** algorithm after each pass. (1 point)

2. Given the following definitions:

```
const int NUM_ITEMS = 6;
string items[NUM_ITEMS];
```

```
void initItems() {
    items[0] = "after";
    items[1] = "all";
    items[2] = "tomorrow";
    items[3] = "is"
    items[4] = "another"
    items[5] = "day";
} // end of initItems()
```

Show the contents of the *auxiliary array* in the **insertion sort** algorithm after each pass. (1 point)

3. Given the following definitions:

```
const int NUM_ITEMS = 8;
string items[NUM_ITEMS];
```

```
void initItems() {
    items[0] = "so";
    items[1] = "we";
    items[2] = "beat";
    items[3] = "on"
    items[4] = "boats"
    items[5] = "against";
    items[6] = "the";
    items[7] = "current";
} // end of initItems()
```

Show the contents of the array in the **bubble sort** algorithm after each pass. (1 point)