

MS-382
Program #5
Arrays and Sorting

Date: Monday, February 6, 2006

Due: Monday, February 13, 2006

Bubble sorting is a simplistic method for sorting small arrays (or vectors) of numbers. The purpose of this assignment is to demonstrate the bubble sorting technique on an array of 20 numbers. The bubble sorting process itself will be described in class (because it is fairly lengthy to do here, but it's very similar to selection sort, that was also described in class and written as a sample array program).

The program should print out the contents of the vector after each pass of the array is made. This way the "bubbling" process can be observed.

Your data output (i.e. the contents of your array after each pass) should look as follows:

```
Data:    20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
Pass 1:  19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1 20
Pass 2:  18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1 19 20
.
.
.
```

Implement the program as a set of functions: `main()` to initialize the array, `sort(int[])` to sort its contents, and `print(int[])` to print out the contents of an array on one line of output.