EE 285 Lab 9

Practice using good techniques to write the programs below. Try to write efficient code. Use comments as needed to explain your code.

A. Pointers and functions 1 (35 points)

Create a C program that:

1. Within `main`, declares a linear array consisting of 10 double values. You can assign values to the array when it is declared or fill them items manually using `scanf()` — your choice. Also, declare three doubles: `min`, `max`, and `average`.
2. Then from within `main`, a function is called. The function should take a pointer to the array declared above and then finds the maximum value, the minimum value, and calculates the average of the values in the array. The values should be "returned" to `main` from the function using pointers.
3. The function prototype should be something like:

   ```
   void arrayStuff(double anArray[], int size, double* x, double* y, double* z);
   ```

   where x will be the minimum value, y is the maximum value, and z is the average. (You can changes the specific names if your prefer.)
4. Finally, from within `main` the array values and the min, max, and average values are printed.

B. Pointers and functions (35 points)

Create a C program that:

1. Within `main`, declares a linear array consisting of 25 integer values.
2. Then from within `main`, three functions are called. The first function fills the array with random numbers between 1 and 25 (inclusive). The second function prints out the array. (All on one line.) The third function reverses the order of the items in the array. (What was first is now last, what was last in now first, and everything in between.) Finally, the second function is called again to print the reversed array.
3. The functions should pass pointers to the array along with the length of the array.

C. Quiz (30 points)

As usual, there will be a short quiz. The quiz will be on pointers and functions.