Lab 6: Practicing Pointers

1. Write and test the following function:

   ```
   int *find_largest(int n, int a[n]);
   ```

   When passed an array of length n, the function will return a pointer to the array's largest element.

   Test the function as described below:

   Initialize an array, data[] of size 10 to contain numbers from [1..9], such that data[i] = i
   Print out the contents of data[] on a single line.

   Write a shuffle function to shuffle the contents of data[].
   Print out the contents of data[] on a single line.

   next use the statement:

   ```
   int *max = find_largest(N, data);
   ```

   Next, print out the value of the largest element pointed to by max.

   Here is a sample output:

   ```
   $ ./textmax
   0 1 2 3 4 5 6 7 8 9
   7 3 9 1 0 4 6 4 2 5
   9
   $
   ```

2. Write a program (without using pointers) that reads a message, then checks to see if it is a palindrome (the letters in the message are the same from left to right as from right to left):

   ```
   Enter a message: Race car.
   Palindrome

   Enter a message: Monkey loves banana.
   Not a palindrome.

   Enter a message: Go, hang a salami. I'm a lasagna hog!
   Palindrome.
   ```

   Ignore all characters that are not letters.

   Rewrite the program to use pointers to keep track of positions in the array.