12.3 LAB TASKS

1. Write a program which takes a number from the user and displays the reverse of it. For example if user enters 849 then the result should be 948.
   For each of the variables you use, declare a pointer that points to the variable. Now make use of only these pointers for any processing to implement the required functionality (i.e. do not use the variables themselves).
   [25 marks]

2. Write a program which takes 3 letters (all upper case) from the user, stores them in an array and then sorts it out alphabetically. It should also display the updated array at the end. You are required to perform this task using pointer notation only; the only place you need square brackets is in defining the arrays.
   [25 marks]

3. Write a function
   double replace_if_greater(double* p, double x)
   that replaces the value to which p points with x if x is greater.
   [25 marks]

4. Suppose you have a main() with three local arrays, all the same size and type (say float). The first two are already initialized to some values. Write a function called addarrays() that accepts the **addresses** of the three arrays as arguments; adds the contents of the first two arrays together, element by element; and places the results in the third array before returning. A fourth argument to this function can carry the size of the arrays. Use pointer notation throughout; the only place you need square brackets is in defining the arrays.
   [25 marks]