Homework 3 – Model 5

(Using Vectorized Code whenever is possible)

Problem1

Write a MATLAB function ReverseArray that takes an array as input and return the reverse array of the input array. Write MATLAB program to use this function.
The input output of the program should look like
Example:

Enter the array: [1 2 3 4 5]
The reverse array: [5 4 3 2 1]

Problem2

For any two vector *x* and *y*. Both have the same size. Write a Matlab command to do the following operations:

I. x2 + y3
II. Create vector that have x element first then y element.
III. The index of negative number in y.
IV. The negative numbers in y.
V. Get the maximum number and its position in z, where z = x + y.

Problem3

Write one statement to do the following:

1) Reverse a row vector X.
   For example: if X=[1 2 3], the reversed vector will be Y=[3 2 1]

2) Replace by zeros all elements that are equal to the biggest element
   For example: if X=[1 -1 3 2 3], it will be [1 -1 0 2 0]

3) Subtract 3 from each element of x which is greater than 3
   For example: if X=[1 -1 7 3 5], it will be [1 -1 4 3 2]

4) Interchange rows 1 and 3 of a 3x3 2D matrix M.
   For example: if M is [1, 2, 7; 3, 4, 7; 5, 6, 7] it will be [5, 6, 7; 3, 4, 7; 1, 2, 7]