**Assignment 3**

**1- Write a program that allows the user to insert an integer then print all numbers between 1 to that number.**

**Example**

Input: 5

Output: 1, 2, 3, 4, 5

**2- Write a program that allows the user to insert an integer then**

**print a multiplication table up to 12.**

**Example**

Input: 5

Outputs: 5 10 15 20 25 30 35 40 45 50 55 60

**3- Write a program that allows to user to insert number then print all even numbers between 1 to this number**

**Example:**

Input: 15

Output: 2 4 6 8 10 12 14

**4- Write a program that takes two integers then prints the power.**

**Example:**

Input: 4 3

Output: 64

**Hint:** how to calculate 4^3 = 4 \* 4 \* 4 =64

**5- Write a program to allow the user to enter a string and print the REVERSE of it.**

**6- Write a program in C# Sharp to find prime numbers within a range of numbers.**

**Test Data :  
Input starting number of range: 1  
Input ending number of range : 50**

***Expected Output* :  
The prime number between 1 and 50 are :  
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47**

**7- .** **Write a program in C# Sharp to convert a decimal number into binary without using an array.  
Test Data :  
Enter a number to convert : 25  
*Expected Output* :  
The Binary of 25 is 11001.**

**8- . Write a program that prints an identity matrix using for loop, in other words takes a value n from the user and shows the identity table of size n \* n.**

**9- Write C# program that Extract a substring from a given string.**

**10- Write C# program that take two string variables and print them as one variable**

**11- . Write a program that prints an identity matrix using for loop, in other words takes a value n from the user and shows the identity table of size n \* n.**

**12- Write a program in C# Sharp to find the sum of all elements of the array.**

**13- Write a program in C# Sharp to merge two arrays of the same size sorted in ascending order.**

**14- Write a program in C# Sharp to count the frequency of each element of an array.**

**15- Write a program in C# Sharp to find maximum and minimum element in an array**

**16- Write a program in C# Sharp to find the second largest element in an array.**

**17-. Consider an Array of Integer values with size N, having values as**

**in this Example**

| 7 | 0 0 | 0 | 0 | 5 | 6 | 7 | 5 | 0 | 7 | 5 | 3 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

write a program find the longest distance between Two equal cells. In this example. The distance is measured by the number Of cells- for example, the distance between the first and the fourth cell is 2 (cell 2 and cell 3).

In the example above, the longest distance is between the first 7 and the

10th 7, with a distance of 8 cells, i.e. the number of cells between the 1st

And the 10th 7s.

**Note:**

- Array values will be taken from the user

- If you have input like 1111111 then the distance is the number of

Cells between the first and the last cell.

**18-** Write a program to create two multidimensional arrays of same size. Accept value from user and store them in first array. Now copy all the elements of first array on second array and print second array.

19- **Write a Program to Print One Dimensional Array in Reverse Order**