1. Write a program in C# Sharp to read n number of values in an array and display it in reverse order.
   Solutions:

```
using System;
public class Exercise2
{
    public static void Main()
{
   int i,n;
   int[] a= new int[100];

       Console.Write("\n\nRead n number of values in an array
and display it in reverse order:\n");

Console.Write("-----------------------------------------------
------------------------\n");

   Console.Write("Input the number of elements to store in the
array :");
   n = Convert.ToInt32(Console.ReadLine());


   Console.Write("Input {0} number of elements in the array :\
n",n);
   for(i=0;i<n;i++)
      {
       Console.Write("element - {0} : ",i);
       a[i] = Convert.ToInt32(Console.ReadLine());
       }

   Console.Write("\nThe values store into the array are : \
n");
   for(i=0;i<n;i++)
     {
        Console.Write("{0}  ",a[i]);
      }

   Console.Write("\n\nThe values store into the array in
reverse are :\n");
   for(i=n-1;i>=0;i--)
      {
        Console.Write("{0} ",a[i]);
       }
   Console.Write("\n\n");
  }
     }
```

2. Find sum of all elements of array:

```
using System;
public class Exercise3
{
    public static void Main()
{
    int[] a= new int[100];
    int i, n, sum=0;


        Console.Write("\n\nFind sum of all elements of array:\
n");
        Console.Write("-------------------------------------\
n");

        Console.Write("Input the number of elements to be
stored in the array :");
         n = Convert.ToInt32(Console.ReadLine());

        Console.Write("Input {0} elements in the array :\n",n);
        for(i=0;i<n;i++)
         {
            Console.Write("element - {0} : ",i);
             a[i] = Convert.ToInt32(Console.ReadLine());
          }

    for(i=0; i<n; i++)
    {
        sum += a[i];
    }

    Console.Write("Sum of all elements stored in the array
is : {0}\n\n", sum);
  }
     }
```

3. C# Sharp Exercises: Copy the elements one array into another array

Solutions:

```
using System;
public class Exercise4
{
    public static void Main()
{
     int[] arr1 = new int[100];
     int[] arr2 = new int[100];
```

```
    int i, n;


       Console.Write("\n\nCopy the elements one array into
another array :\n");

Console.Write("-----------------------------------------------
-----\n");

       Console.Write("Input the number of elements to be
stored in the array :");
        n = Convert.ToInt32(Console.ReadLine());

       Console.Write("Input {0} elements in the array :\n",n);
       for(i=0;i<n;i++)
        {
           Console.Write("element - {0} : ",i);
            arr1[i] = Convert.ToInt32(Console.ReadLine());
         }
    /* Copy elements of first array into second array.*/
    for(i=0; i<n; i++)
    {
        arr2[i] = arr1[i];
    }

    /* Prints the elements of first array   */
    Console.Write("\nThe elements stored in the first array
are :\n");
    for(i=0; i<n; i++)
    {
        Console.Write("{0}  ", arr1[i]);
    }

    /* Prints the elements copied into the second array. */
    Console.Write("\n\nThe elements copied into the second
array are :\n");
    for(i=0; i<n; i++)
    {
        Console.Write("{0}  ", arr2[i]);
    }
            Console.Write("\n\n");
  }
     }
```

4. C# Sharp Exercises: Find maximum and minimum element in an array

Solutions:

```
using System;
```

```
public class Exercise9
{
    public static void Main()
{
    int[] arr1= new int[100];
    int i, mx, mn, n;


       Console.Write("\n\nFind maximum and minimum element in
an array :\n");

Console.Write("-----------------------------------------------
---\n");

       Console.Write("Input the number of elements to be
stored in the array :");
        n= Convert.ToInt32(Console.ReadLine());

       Console.Write("Input {0} elements in the array :\n",n);
       for(i=0;i<n;i++)
            {
           Console.Write("element - {0} : ",i);
            arr1[i] = Convert.ToInt32(Console.ReadLine());
         }


    mx = arr1[0];
    mn = arr1[0];

    for(i=1; i<n; i++)
    {
        if(arr1[i]>mx)
        {
            mx = arr1[i];
        }


        if(arr1[i]<mn)
        {
            mn = arr1[i];
        }
    }
    Console.Write("Maximum element is : {0}\n", mx);
    Console.Write("Minimum element is : {0}\n\n", mn);
  }
}
```

5. Write a program in C# Sharp to calculate the sum of elements in an array.

Solutions:

```
using System;
public class funcexer5
  {
    public static int Sum(int[] arr1)
    {
        int tot=0;
        for (int i = 0;i < arr1.Length; i++)
        tot += arr1[i];
        return tot;
    }
    public static void Main()
    {
       int[] arr1 = new int[5];
       Console.Write("\n\nFunction : Calculate the sum of the
elements in an array :\n");

Console.Write("-----------------------------------------------
---------------\n");

       Console.Write("Input 5 elements in the array :\n");
       for(int j=0; j<5; j++)
       {
        Console.Write("element - {0} : ",j);
        arr1[j] = Convert.ToInt32(Console.ReadLine());
       }
       Console.WriteLine("The sum of the elements of the array
is {0}", Sum(arr1));
    }
}
```

6. Write a program in C# Sharp to create a function to check whether a number is prime or not

Solutions:

```
using System;
public class funcexer9
{
    public static bool chkprime(int num)
    {
        for (int i=2; i < num; i++)
          if (num %i == 0)
            return false;
        return true;
    }
    public static void Main()
    {
```

```
       Console.Write("\n\nFunction : To check a number is
prime or not :\n");

Console.Write("-----------------------------------------------
---\n");
       Console.Write("Input a number : ");
      int n= Convert.ToInt32(Console.ReadLine());

        if (chkprime(n))
          Console.WriteLine(n+" is a prime number");
        else
          Console.WriteLine(n+" is not a prime number");
    }
}
```

7. C# Sharp Exercises: Function : To find the factorial of a given number

Solutions:

```
using System;
class funcexer11
{
static void Main()
{
      decimal f;
       Console.Write("\n\nRecursive Function : To find the
factorial of a given number :\n");

Console.Write("-----------------------------------------------
------------------\n");
       Console.Write("Input a number : ");
      int num= Convert.ToInt32(Console.ReadLine());
      f = Factorial(num);
      Console.WriteLine("The factorial of {0}! is  {1}", num,
f);
}
static decimal Factorial(int n1)
    {
// The bottom of the recursion
      if (n1 == 0)
        {
         return 1;
        }
// Recursive call: the method calls itself
       else
        {
          return n1 * Factorial(n1 - 1);
        }
    }
```

```
}
```

8. Write a program in C# Sharp to create a function to calculate the sum of the individual digits of a given number.

Solutions:

```
using System;
public class funcexer10
{
public static int SumCal( int n )
    {
       string n1 = Convert.ToString(n);
       int sum = 0;
       for (int i = 0; i < n1.Length; i++)
         sum += Convert.ToInt32(n1.Substring(i,1));
         return sum;
    }

public static void Main()
    {
       int num;
       Console.Write("\n\nFunction : To calculate the sum of
the individual digits of a number :\n");

Console.Write("-----------------------------------------------
----------------------------\n");
      Console.Write("Enter a number: ");
      num = Convert.ToInt32( Console.ReadLine() );
      Console.WriteLine("The sum of the digits of the number
{0} is : {1} \n",num,SumCal(num));
    }
     }
```