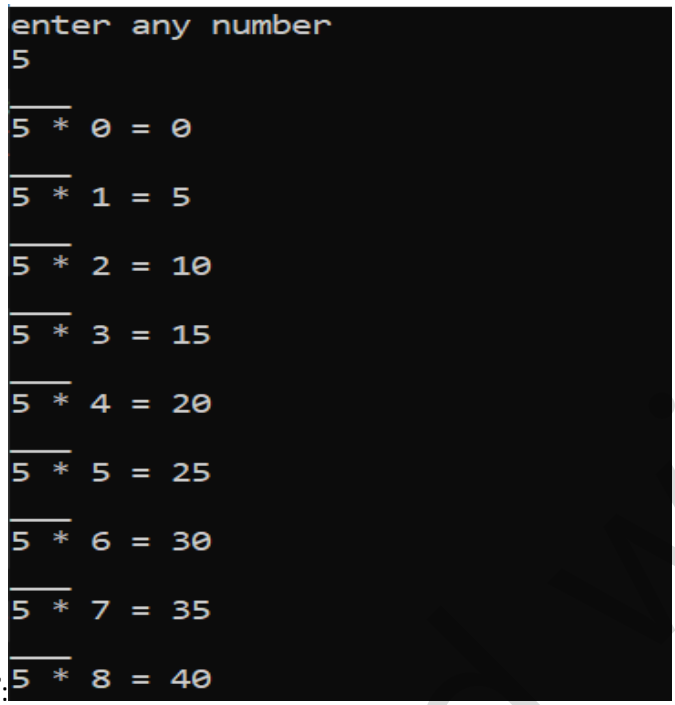
CONVERSION OF MULTIPLE C- PROGRAMS TO C# PROGRAMS
BY
CH. PAVAN KUMAR REDDY

PROGRAM (1): WRITE A C# PROGRAM ON MULTIPLICATION TABLE:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4MorningAssignment_20_programs_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int input, i;
         Console.WriteLine("enter any number");
         input = Convert.ToInt32(Console.ReadLine());

         for (i = 0; i <= 8; i++)
         {
            Console.WriteLine("___");
            Console.WriteLine("{0} * {1} = {2}", input, i, input * i);
         }
         Console.ReadLine();


      }
   }
}
```

OUTPUT:

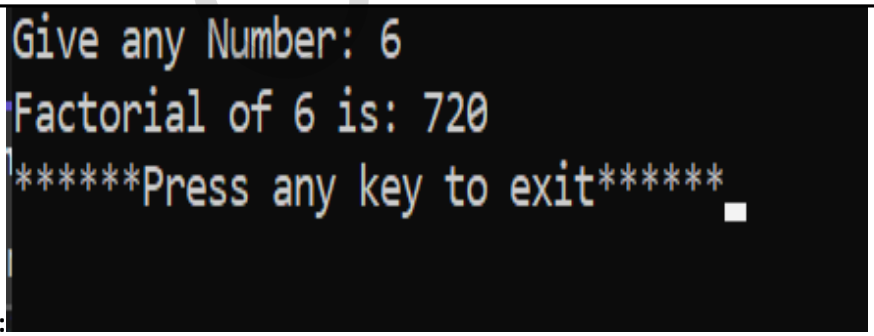


PROGRAM (2): WRITE A C# PROGRAM ON FACTORIAL OF A NUMBER:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Factorial Project
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int i, fact = 1, number;
         Console. Write ("Give any Number: ");
         number = Convert.ToInt32(Console.ReadLine());
         for (i = 1; i <= number; i++)
         {
            fact = fact * i;
         }
         Console. Write ("Factorial of " + number + " is: " + fact);

            Console.ReadLine();
         Console. Write ("******Press any key to exit******");
         Console.ReadLine();


      }
   }
}
```

OUTPUT:



PROGRAM (3): WRITE A C# PROGRAM ON SUM OF N OF NUMBERS:

CODE:

```
 using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace exercise

{
   internal class Program
   {
      static void Main (string [] args)
      {
         int i, sum = 0;
         Console.WriteLine("The sum of 10 natural numbers:");
         for (i = 0; i <= 10; i++)
         {
            sum = sum + i;
         }
         Console.WriteLine("{0}", i);
         Console.ReadLine();
         Console.WriteLine(sum);
         Console.ReadLine();


      }
   }
}
```

OUTPUT:

```
The first 10 natural number are :
0
1
2
3
4
5
6
7
8
9
10

The Sum is
55
```

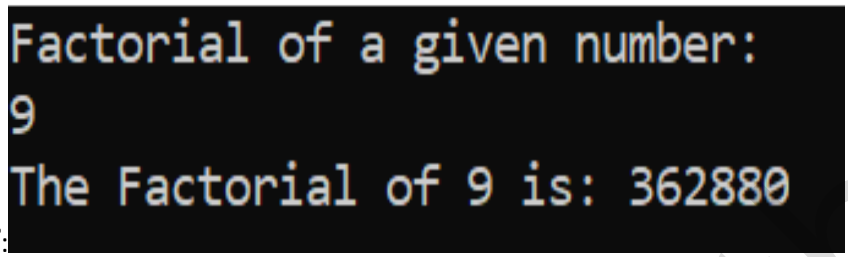
PROGRAM (4): WRITE A C# PROGRAM ON FACTORIAL USNIG FUNCTIONS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Factorial

{
   internal class Program
   {
      static void Main (string [] args)
      {
         int   num, factorial =1;
         Console.WriteLine("Factorial of a given number:");
         num= Convert.ToInt32(Console.ReadLine());

         if(num<0)
            Console.WriteLine("negative number");
         else if(num<=1)
            Console.WriteLine("{0}! = {1}", num, factorial);
         else {

            for (int counter = num; counter >= 2; counter--)
            {
               factorial = factorial * counter;
            }

         }
         Console. Write ("The Factorial of {0} is: {1}", num, factorial);
         Console.ReadLine();



      }
   }
```

```
}
```

OUTPUT:

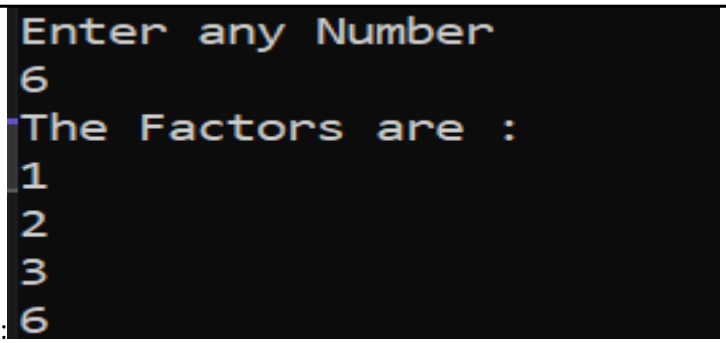


PROGRAM (5): WRITE A C# PROGRAM ON FACTORS OF NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;

namespace Program
{
   class Program
   {
      static void Main (string [] args)
      {
         int num, a;
         Console.WriteLine("Enter any Number ");
         num = Convert.ToInt32 (Console.ReadLine());
         Console.WriteLine("The Factors are: ");
         for (a = 1; a <= num; a++)
         {
            if (num % a == 0)
            {
               Console.WriteLine(a);
            }
         }
         Console.ReadLine();

      }
   }
}
```

OUTPUT:

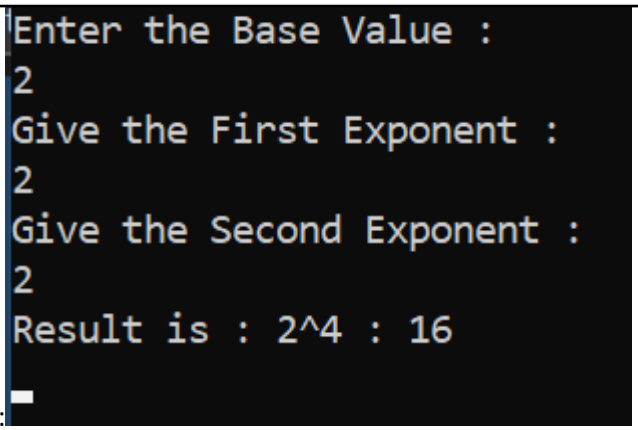


PROGRAM (6): WRITE A C# PROGRAM ON POWER OF NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int num, exp1, exp2;
         Console.WriteLine("Enter the Base Value: ");
          num = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Give the First Exponent:");
          exp1 = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Give the Second Exponent:");
           exp2 = Convert.ToInt32(Console.ReadLine());
         int add;
         add = exp1 + exp2;
         Console.WriteLine("Result is: {0} ^ {1}: {2}", num, add, Math. Pow (num,
add));
         Console.ReadLine();



      }
   }
}
```

OUTPUT:

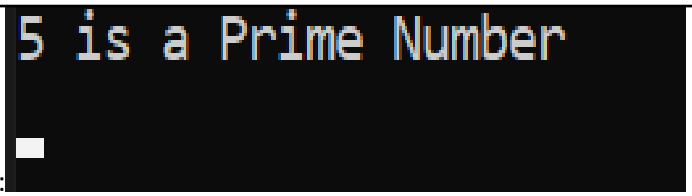


PROGRAM (7): WRITE A C# PROGRAM ON PRIME NUMBERS USING FUNCTIONS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int n = 5, a = 0;

         for (int i = 1; i <= n; i++)
            if (n % i == 0)
            {
               a++;
            }

       if (a == 2)
         {
            Console.WriteLine("{0} is a Prime Number", n);
         }
         else
         {
            Console.WriteLine("Not a Prime Number");
         }

         Console.ReadLine();



      }
   }
}
```

OUTPUT:

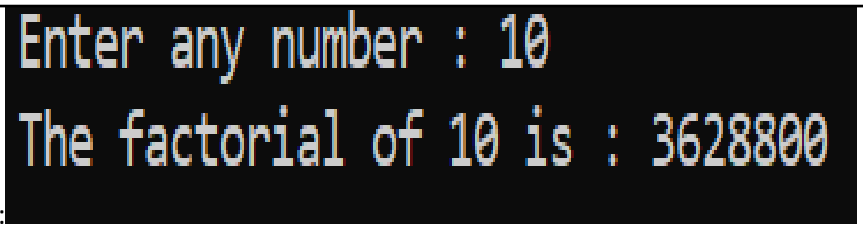


PROGRAM (8): WRITE A C# PROGRAM ON FACTORIAL OF NUMBERS USING RECURSION:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {


         Console. Write (" Enter any number: ");
         int n1 = Convert.ToInt32(Console.ReadLine());
          long fact = FactCalc(n1);
         Console.WriteLine(" The factorial of {0} is: {1} ", n1, fact);
         Console.ReadLine();
      }

      private static long FactCalc(int n1)
      {
         if (n1 == 0)
         {
            return 1;
         }
         return n1 * FactCalc(n1 - 1);

      }
   }
}
```

OUTPUT:



PROGRAM (9): WRITE A C# PROGRAM ON RANGE OF PRIME NUMBER:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int num, i, ctr, a, b;
         Console. Write ("Enter a number Starting range: ");
         a=Convert.ToInt32(Console.ReadLine());
         Console. Write ("Ending range: ");
         b = Convert.ToInt32(Console.ReadLine());
         Console. Write ("The prime numbers between {0} and {1} are: \n", a, b);
         for (num = a; num <= b; num++)
         {
            ctr = 0;

            for (i = 2; i <= num / 2; i++)
            {
               if (num % i == 0)
               {
                  ctr++;
                  break;
               }
            }

            if (ctr == 0 && num! = 1)
               Console. Write ("{0} ", num);
         }

         Console.ReadLine();
```

```
    }
  }
}
```

OUTPUT:

```
Enter a number Starting range: 20
Ending range : 50
The prime numbers between 20 and 50 are :
23 29 31 37 41 43 47
```

PROGRAM (10): WRITE A C# PROGRAM ON SWAP OF NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int a = 5, b = 8;
         Console.WriteLine("Before swap a= " + a + " b= " + b);
         a = a + b; // a= 13
         b = a - b; // b= 5
         a = a - b; // a= 8
         Console. Write ("After swap a= " + a + " b= " + b);
         Console.ReadLine();


      }
   }
}
```

OUTPUT:

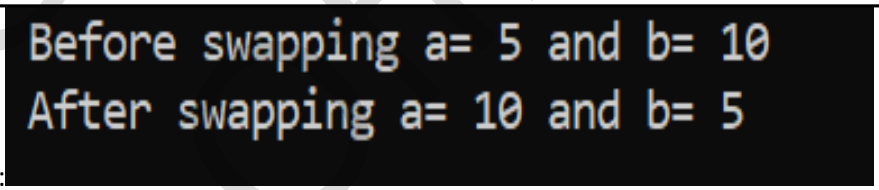
```
Before swap a= 5 b= 8
After swap a= 8 b= 5
```

PROGRAM (11): WRITE A C# PROGRAM ON SWAP OF NUMBERS USING THIRD VARIABLE:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int a = 5, b = 10, temp;
         Console.WriteLine(" Before swapping a= {0} and b= {1}", a, b);
         //swapping Logic
         temp = a;
         a = b;
         b = temp;
         Console. Write (" After swapping a= {0} and b= {1}", a, b);
         Console.ReadLine();

      }
   }
}
```

OUTPUT:

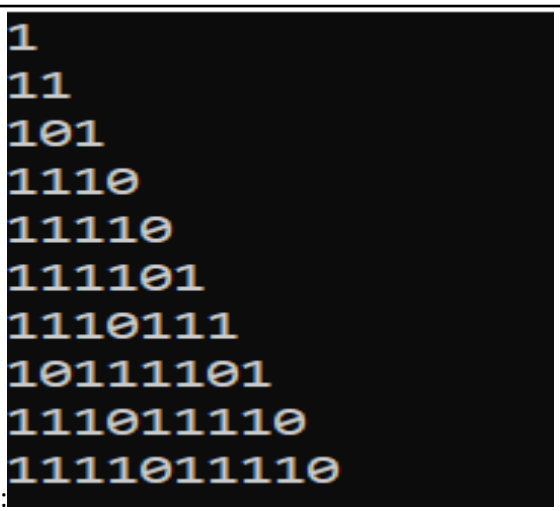


PROGRAM (12): WRITE A C# PROGRAM ON PATTERN OF NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
int i, a, b = 0;

for (i = 0; i < 10; i++) //loop for row
{
for (a = 0; a <= i; a++) //loop for column
{
b++; //increment in count variable
if (b % 5 == 0)
Console. Write (0);
else
Console. Write (1);
}
Console.WriteLine(); //for new line
}
Console.ReadLine();

}
   }
}
```

OUTPUT:

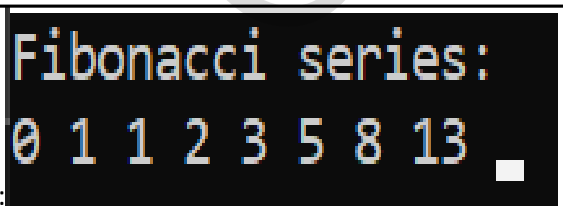


PROGRAM (13): WRITE A C# PROGRAM ON FIBONACCI SERIES NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int val1 = 0, val2 = 1, val3, i, n;
         n = 8;
         Console.WriteLine("Fibonacci series:");
         Console. Write (val1 + " " + val2 + " ");
         for (i = 2; i < n; ++i)
         {
            val3 = val1 + val2;
            Console. Write (val3 + " ");
            val1 = val2;
            val2 = val3;
         }
         Console.ReadLine();

         }
   }
}
```

OUTPUT:

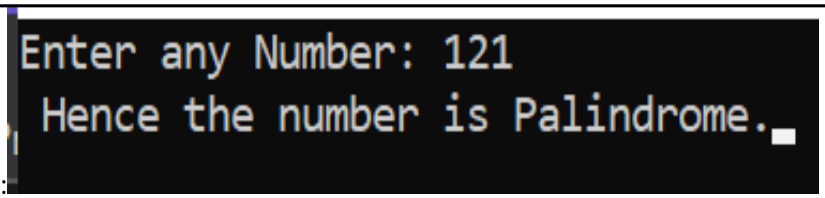


PROGRAM (14): WRITE A C# PROGRAM ON PALINDROME NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System. Text;
using System.Threading.Tasks;

namespace Day4morProject_Multiplication_
{
   internal class Program
   {
      static void Main (string [] args)
      {
         int n, e, sum = 0, temp;
         Console. Write ("Enter any Number: ");
         n = Convert.ToInt32(Console.ReadLine());
         temp = n;
         while (n > 0)
         {
            e = n % 10;
            sum = (sum * 10) + e;
            n = n / 10;
         }
         if (temp == sum)
            Console. Write (" Hence the number is Palindrome.");
         else
            Console. Write (" Hence the number is not a Palindrome");
         Console.ReadLine();

      }
   }
}
```

OUTPUT:

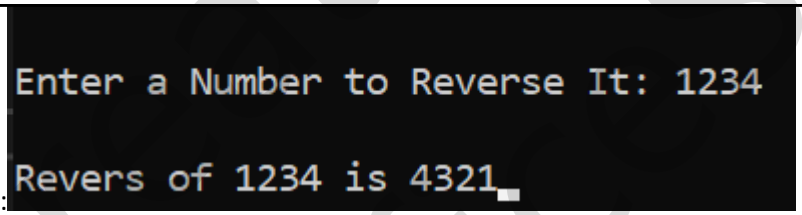


PROGRAM (15): WRITE A C# PROGRAM ON REVERSE OF NUMBERS:

CODE:

```
int n, rev = 0, rem, m;
Console. Write ("\n\nEnter any Number to Reverse It: ");
n = Convert.ToInt32(Console.ReadLine());
m = n;
while (m > 0)
{
rem = m % 10;
m = m / 10;
rev = rev * 10 + rem;
}
Console. Write ("\nReversing of {0} is {1}", n, rev);
Console.ReadLine();
    }

  }

}
```

OUTPUT:



PROGRAM (16): WRITE A C# PROGRAM ON ARMSTRONG OF NUMBERS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day4eve_20_project
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int n, rem, m, result = 0;

         Console.Write("\n\nEnter any Number To Check the number is Armstrong
Number or Not : ");
         n = Convert.ToInt32(Console.ReadLine());

         m = n;
         while (m > 0)
         {
            rem = m % 10;
            m = m / 10;
            result = result + rem * rem * rem;
         }

         if (result == n)
            Console.WriteLine("\n Yes, {0} is an ARMSTRONG Number", n);
         else
            Console.WriteLine("\n No, {0} is Not an ARMSTRONG Number", n);

         Console.ReadLine();
      }
   }
}
```

OUTPUT:

```
Enter any Number To Check the number is Armstrong Number or Not : 344

 No, 344 is Not an ARMSTRONG Number
```

PROGRAM (17): WRITE A C# PROGRAM ON ARMSTRONG OF NUMBERS USING FUNCTION:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day4eve_20_project
{
   internal class Program
   {
      public static bool IsArmstrong(int n)
      {
         int m, result = 0, rem;
         m = n;
         while (m > 0)
         {
            rem = m % 10;
            m = m / 10;
            result = result + rem * rem * rem;
         }

         if (result == n)
            return true;
         else
            return false;
      }
      static void Main(string[] args)
      {

         int n;


         Console.Write("\n\nEnter any Number To Check, Armstrong Number or Not
: ");
         n = Convert.ToInt32(Console.ReadLine());

         if (IsArmstrong(n))
```

```
            Console.WriteLine("\nYes, {0} is an ARMSTRONG Number", n);
        else
            Console.WriteLine("\nNo, {0} is Not an ARMSTRONG Number", n);
        Console.ReadLine();
    }
  }
}
```

OUTPUT:

```
Enter any Number To Check, Armstrong Number or Not : 333

No, 333 is Not an ARMSTRONG Number
```

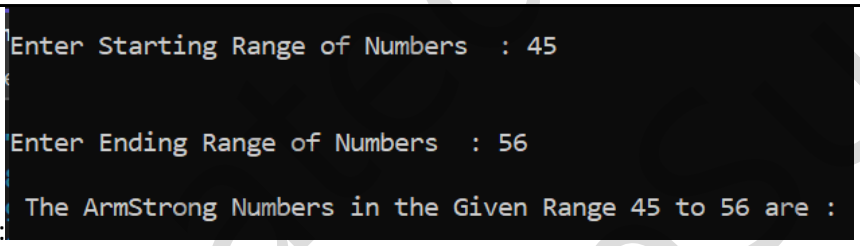
PROGRAM (18): WRITE A C# PROGRAM ON ARMSTRONG OF NUMBERS USING FUNCTION:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day4eve_20_project
{
   internal class Program
   {
      public static bool IsArmstrong(int n)
      {
         int m, result = 0, rem;
         m = n;
         while (m > 0)
         {
            rem = m % 10;
            m = m / 10;
            result = result + rem * rem * rem;
         }

         if (result == n)
            return true;
         else
            return false;
      }
      static void Main(string[] args)
      {

         int a, b, i;


         Console.Write("\n\nEnter Starting Range of Numbers  : ");

         a = Convert.ToInt32(Console.ReadLine());

         Console.Write("\n\nEnter Ending Range of Numbers  : ");
```

```
        b = Convert.ToInt32(Console.ReadLine());


        Console.Write("\n The ArmStrong Numbers in the Given Range {0} to {1} are
:", a, b);
        for (i = a; i <= b; i++)
        {
           if (IsArmstrong(i))
              Console.Write(" {0}", i);
        }
        Console.ReadLine();
     }
  }
}
```

OUTPUT:

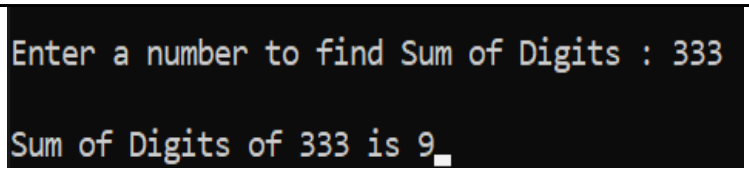


PROGRAM (19): WRITE A C# PROGRAM TO PRINT SUM OF DIGITS:

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day4eve_20_project
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int n, m, rem, result = 0;

         Console.Write("\n\nEnter a number to find Sum of Digits : ");
         n = Convert.ToInt32(Console.ReadLine());

         m = n;
         while (m > 0)
         {
            rem = m % 10;
            m = m / 10;
            result = result + rem;
         }

         Console.Write("\nSum of Digits of {0} is {1}", n, result);

         Console.ReadLine();
      }
   }
}
```

OUTPUT:



PROGRAM (20): WRITE A C# PROGRAM TO PRINT PRIME NUMBERS WITHOUT USING FUNCTIONS :

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day4eve_20_project
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int input, i;

         Console.Write("\n\nEnter any Number :  ");
         input = Convert.ToInt32(Console.ReadLine());

         for (i = 2; i < input; i++)
         {
            if (input % i == 0)
               break;
         }

         if (i == input)
            Console.WriteLine("\nYes, {0} is a Prime Number", input);
         else
            Console.WriteLine("\nNo, {0} is Not a Prime Number", input);

         Console.ReadLine();
      }
   }
}
```

OUTPUT: