C programs to C# programs

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NB Technologies

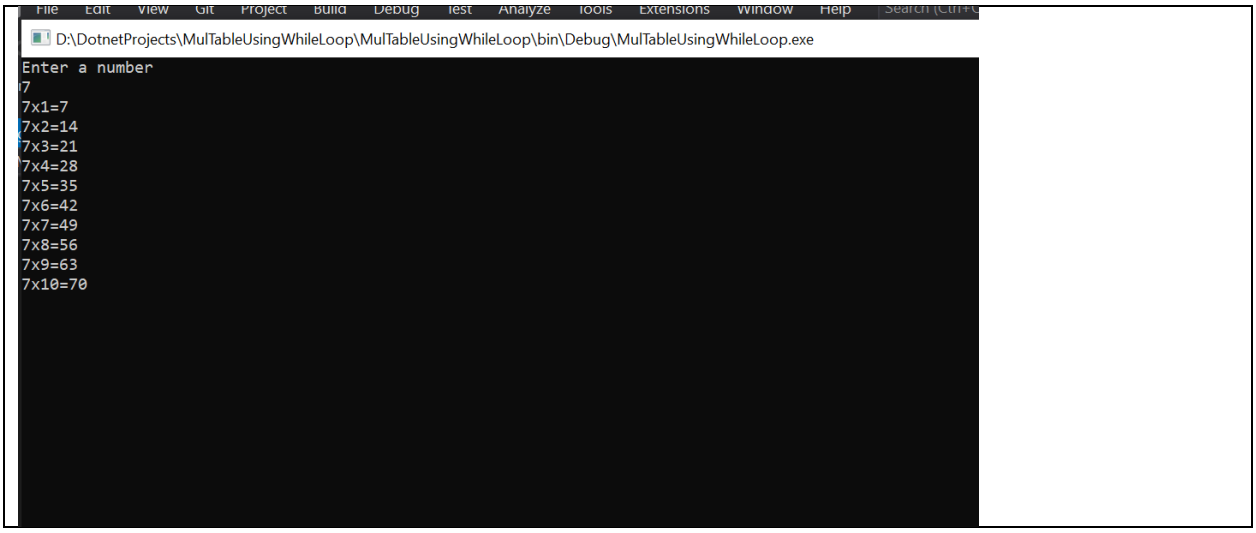
Program 1:

Write a C# program for Multiplication of a Number

Code:

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

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

         //logic
         for (i = 1; i <= 10; i++)
         {
            Console.WriteLine(input + "x" + i + "x" + input * i);

         }
         for (i = 1; i <= 10; i++)
         {
            Console.WriteLine("{0}x{1}={2}", input, i, input * i);
         }
         Console.ReadLine();
      }
   }
}
```

Result:

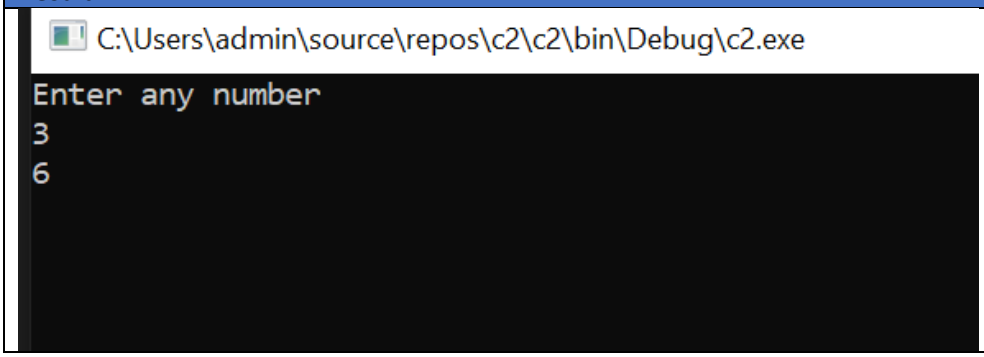


Program 2:
Write a C# program to print factorial of a given number
Code:

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

namespace c2
{
   internal class Program
   {
      static void Main(string[] args)
      {
         //variable declaration
         int input, product = 1, i;
         //user input
         Console.WriteLine("Enter any number");
         input = Convert.ToInt32(Console.ReadLine());
```

```
        //logic
        for(i=1;i<=input;i++)
        {
           product = product * i;

        }

        //output
        Console.WriteLine(product);
        Console.ReadLine();

    }
}
```

Result :



Program 3:

Write a c program to print sum of N natural numbers

Code:

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

namespace SumOfnNaturalNumbers
{
   class Program
```

```
    {
        static void Main(string[] args)
        {
            int i, n, sum = 0;
            Console.WriteLine("Enter any number ");
            n = Convert.ToInt32(Console.ReadLine());
            for (i = 1; i <= n; i++)
                sum += i;
            Console.WriteLine(sum);
            Console.ReadLine();
        }
    }
}
```

Result:

Program 4:

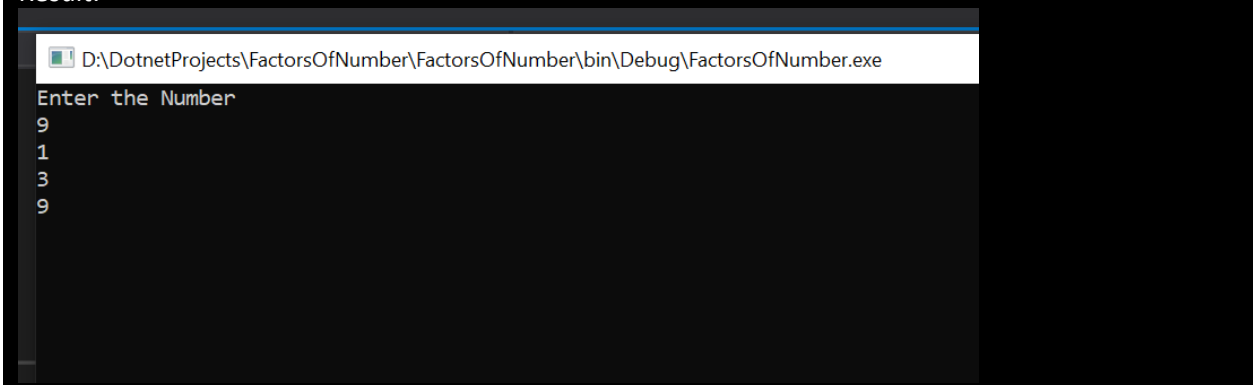
Write a C# program to print factors of a number

Code:

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

namespace FactorsOfNumber
{
    class Program
    {
```

```
        static void Main(string[] args)
        {
            int n, i;
            Console.WriteLine("Enter the Number");
            n = Convert.ToInt32(Console.ReadLine());
            for(i=1;i<=n;i++)
            {
                if (n % i == 0)
                {
                    Console.WriteLine(i);
                }

            }
            Console.ReadLine();
        }

    }
}
```

Result:

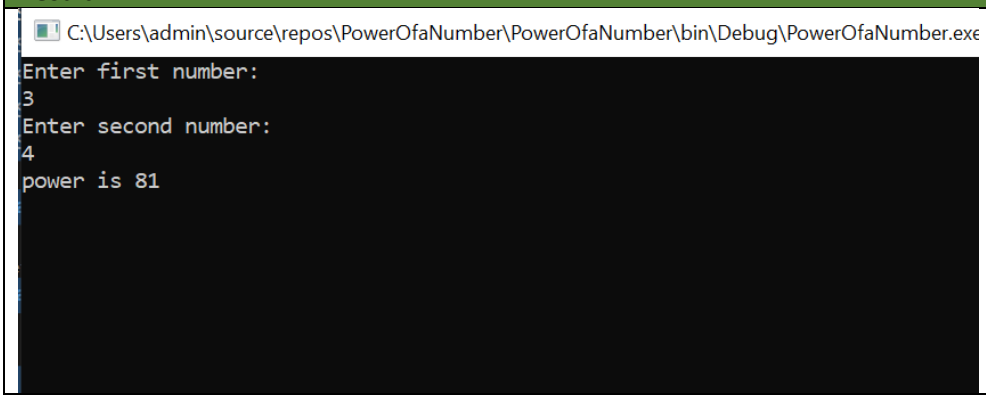


Program 5:
Write a C# program to print power of a given number
Code:

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

namespace PowerOfaNumber
{
    class Program
```

```
  {
    static void Main(string[] args)
    {
      int x, n,p=1 ;
      Console.WriteLine("Enter first number:");
      x = Convert.ToInt32(Console.ReadLine());
      Console.WriteLine("Enter second number:");
      n = Convert.ToInt32(Console.ReadLine());
      for (int i = 1; i <= n; i++)
        p = p * x;
      Console.WriteLine("power is " + p);
      Console.ReadLine();
    }
  }
}
```

Result:



Program 6:

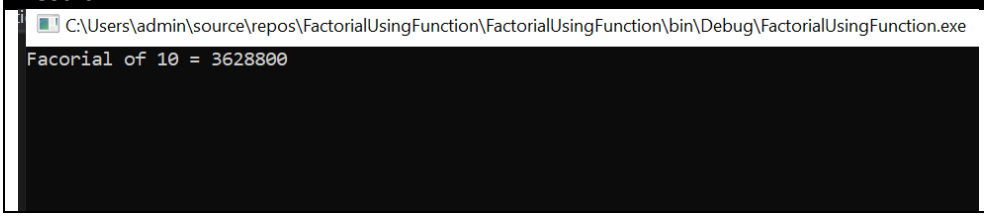
Write a C# program to print factorial using function

Code:

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

namespace FactorialUsingFunction
{
    internal class Program
    {
```

```
        public static int Factorial(int n)
        {
           int fact = 1;
           for (int i = 1; i <=n; i++)
              fact *= i;
           return fact;
        }
        public static void print(int n)
        {
           Console.WriteLine("Facorial of {0} = {1}", n, Factorial(n));


        }
        static void Main(string[] args)
        {
           int n = 10;
           print(n);
           Console.ReadLine();
        }
    }
}
```

Result:



Program 7:

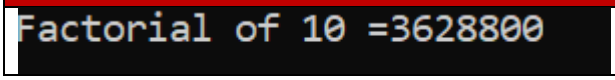
Write a C# program for Factorial using recursion

Code:

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

namespace FactorialUsingFunction
{
```

```
    internal class Program
    {
        public static int Factorial(int n)
        {
            if (n == 0)
                return 1;
            else
                return n * Factorial(n - 1);
        }


        public static void Print(int n)
        {
            Console.WriteLine("Factorial of {0} ={1}", n, Factorial(n));

        }
        static void Main(string[] args)
        {
            int n = 10;
            Print(n);
            Console.ReadLine();
        }
    }
}
```

Result:



Program 8:

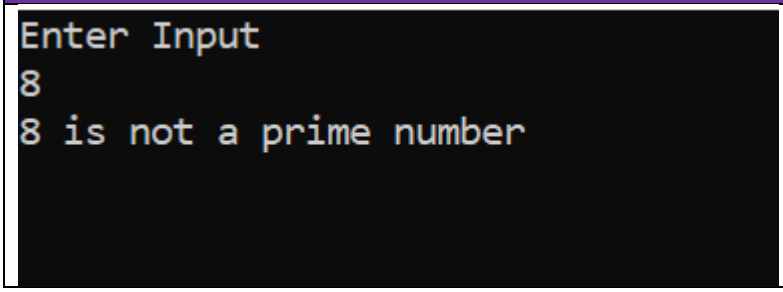
Write a C# program to check whether a given number is prime or not

Code:

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

namespace ConsoleApp1
{
```

```
   class Program
   {
      static void Main(string[] args)
      {
         //variable declaration
         int input, i, count = 0;
         //input
         Console.WriteLine("Enter Input");
         input = Convert.ToInt32(Console.ReadLine());
         for (i =2; i<=input;i++)
         {
            if (input % i == 0)
               break;

         }
         if (i == input)
            Console.WriteLine("{0} is a Prime number", input);
         else
            Console.WriteLine("{0} is not a prime number", input);

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

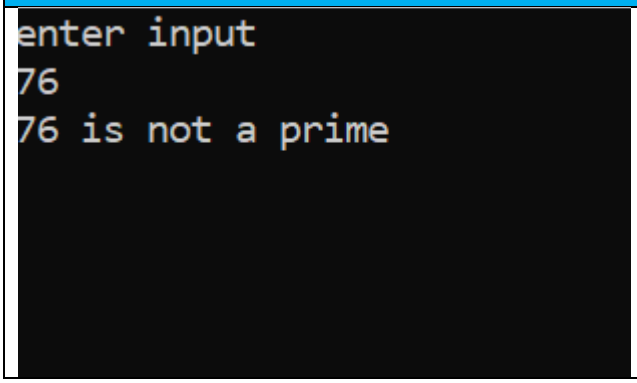
Result:



Program 9:
Write a C# program to print prime number using function
Code:
using System; using System.Collections.Generic; using System.Linq;

```
using System.Text;
using System.Threading.Tasks;

namespace prime_number_using_functions
{
   internal class Program
   {
      public static void Prime(int input)
      {
         int i;
         for (i = 2; i < input; i++)
         {
            if (input % i == 0)
               break;

         }
         if (i == input)
            Console.WriteLine("{0} is prime", input);
         else
            Console.WriteLine("{0} is not a prime", input);

      }
      static void Main(string[] args)
      {
         Console.WriteLine("enter input");
         Prime(Convert.ToInt32(Console.ReadLine()));
         Console.ReadLine();

      }
   }
}
```

Result:



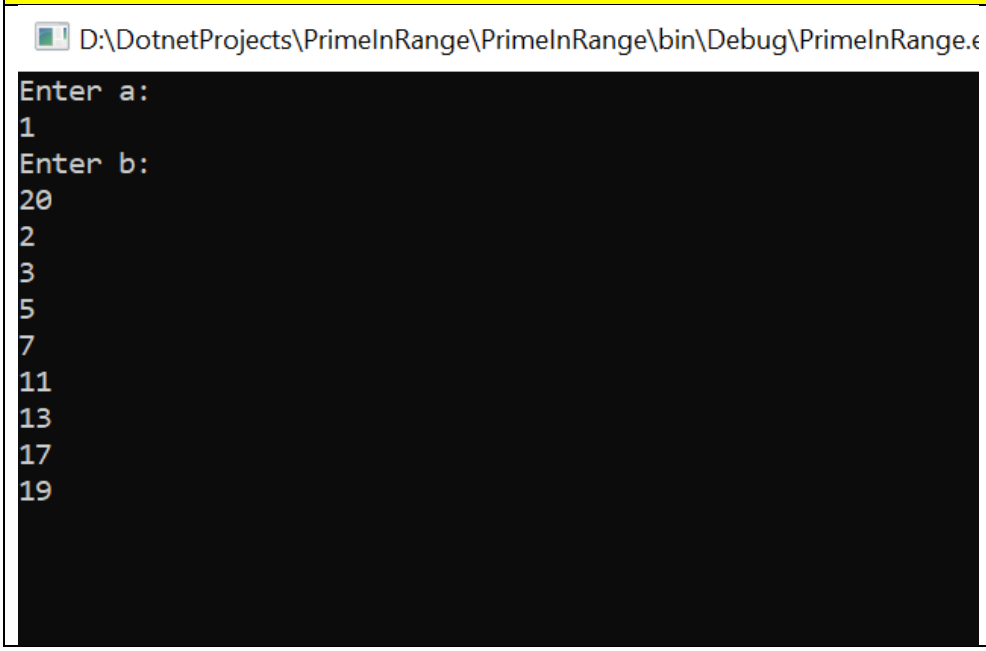
Program 10:

Write a C# program of prime in range

Code:

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

namespace PrimeInRange
{
   class Program
   {
      static bool Prime(int input)
      {
         int i;

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

         }
         if (i == input)
            return true;
         else
            return false;

      }
      static void Main(string[] args)
      {
         int i, a, b;
         Console.WriteLine("Enter a:");
         a = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter b:");
         b = Convert.ToInt32(Console.ReadLine());
         for (i = a; i <= b; i++)
         {
            if (Prime(i))
               Console.WriteLine(i);
         }

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

Result:



Program 11:

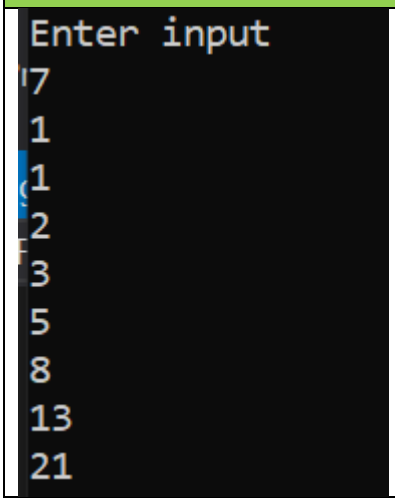
Write a C# program to print Fibonacci series

Code:

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

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

         int input;
         Console.WriteLine("Enter input");
         input = Convert.ToInt32((Console.ReadLine()));
```

```
        int next = 0;
        int prev = 0;
        for (int i = 0; i <= input; i++)
        {
           if (next == 0)
           {
              next = 1;
           }
           else
           {
              int temp = next;
              next = next + prev;
              prev = temp;
           }
           Console.WriteLine( next);

        }
        Console.ReadLine();

     }
   }
}
```

Result:



Program 12:

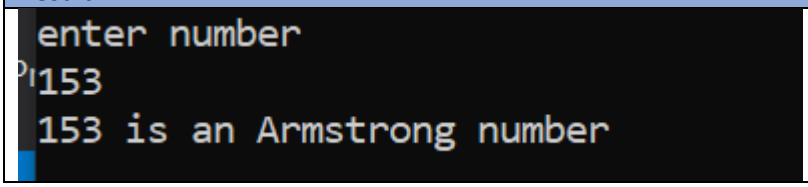
Write a C# program to print Armstrong number

Code:

```
using System;
using System.Collections.Generic;
```

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

namespace Armstrong_number
{
    internal class Program
    {
        static void Main(string[] args)
        {
            int number, rem, sum = 0, temp;
            Console.WriteLine("enter number");
            number = Convert.ToInt32(Console.ReadLine());
            temp = number;
            while (number > 0)
            {
                rem = number % 10;
                sum = sum + (rem * rem * rem);
                number = number / 10;
            }
            if (temp == sum)
            {
                Console.WriteLine("{0} is an Armstrong number", temp);
            }
            else
            {
                Console.WriteLine("{0} is not an Armsrong number", temp);
            }
            Console.ReadLine();
        }


    }

}
```

Result:



Program 13:

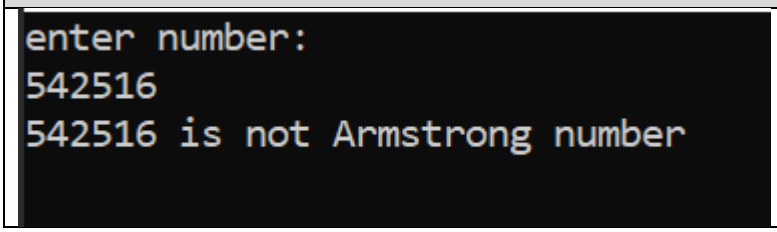
Write a C# program to print Armstrong number using function

Code:

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

namespace Armstrong_Function
{
   internal class Program
   {
      public static bool Arm(int number)
      {
         int temp, sum = 0, rem;
         temp = number;
         while (number > 0)
         {
            rem = number % 10;
            sum = sum + (rem * rem * rem);
            number = number / 10;

         }
         if (temp == sum)
         {
            return true;

         }
         else
         {
            return false;

         }
      }
      static void Main(string[] args)
      {
         int number;
         Console.WriteLine("enter number:");
         number = Convert.ToInt32(Console.ReadLine());
         if (Arm(number) == true)
            Console.WriteLine("{o} is Armstrong number", number);
         else
            Console.WriteLine("{0} is not Armstrong number", number);
         Console.ReadLine();


      }
```

```
    }
}
```

Result:



Program 14:

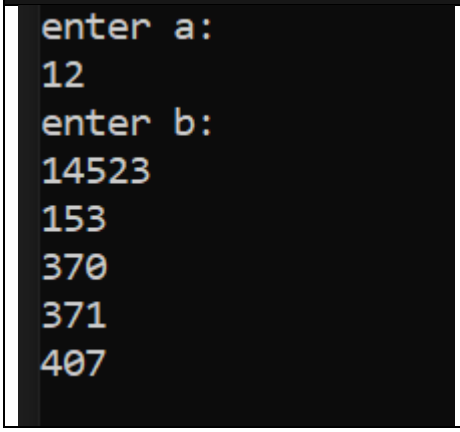
Write a C# program to print Armstrong Number in the given range

Code:

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

namespace Armstrong_range_program
{
    internal class Program
    {
        public static bool Arm(int number)
        {
            int temp, sum = 0, rem;
            temp = number;
            while (number > 0)
            {
                rem = number % 10;
                sum = sum + (rem * rem * rem);
                number = number / 10;

            }
            if (temp == sum)

            {
                return true;

            }
            else
```

```
        {
            return false;

        }
    }
    public static void Main(string[] args)
    {
        int a, b;
        Console.WriteLine("enter a:");
        a = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("enter b:");
        b = Convert.ToInt32(Console.ReadLine());
        for (int i = a; i <= b; i++)
        {
            if (Arm(i))
                Console.WriteLine(i);

        }
        Console.ReadLine();




    }
  }
}
```

Result:



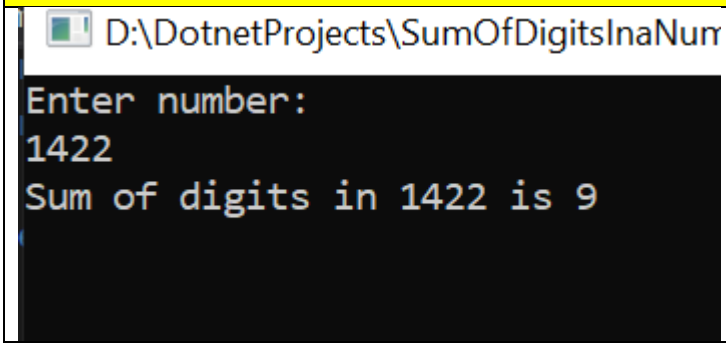
Program 15:

Write a C# program to print sum of digits in a number

Code:

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

namespace Digitsum_program
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int rem, sum = 0, number;
         Console.WriteLine("Enter number:");
         number = Convert.ToInt32(Console.ReadLine());
         int temp = number;
         while (number > 0)
         {
            rem = number % 10;
            sum = sum + rem;
            number = number / 10;
         }
         Console.WriteLine("Sum of digits in {0} is {1}", temp, sum);

         Console.ReadLine();


      }
   }
}
```

Result:

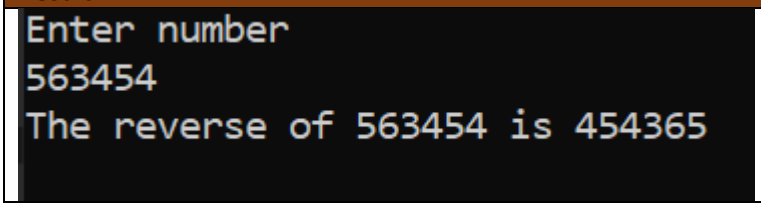


Program 16:
Write a C# program to reverse a number

Code:

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

namespace ReverseOfaNumber
{
   class Program
   {
      static void Main(string[] args)
      {
         int n, temp, rem, rev = 0;
         Console.WriteLine("Enter number");
         n = Convert.ToInt32(Console.ReadLine());
         temp = n;
         while (n > 0)
         {
            rem = n % 10;
            rev = (rev * 10) + rem;
            n = n / 10;

         }

         Console.WriteLine("The reverse of {0} is {1}", temp, rev);

         Console.ReadLine();


      }
   }
}
```

Result:



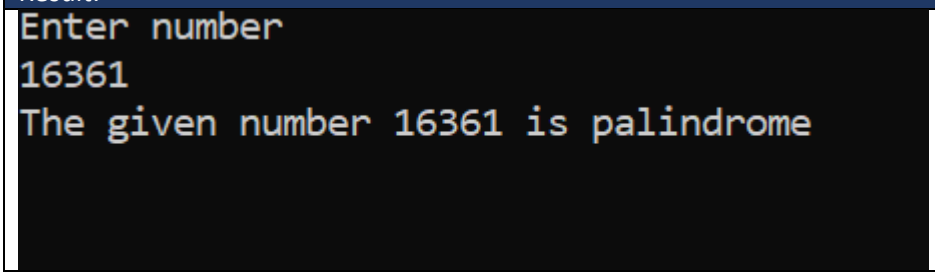
Program 17:

Write a C# program to check whether given number is palindrome or not

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace Palindrome
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int n, temp, rem, rev = 0;
         Console.WriteLine("Enter number");
         n = Convert.ToInt32(Console.ReadLine());
         temp = n;
         while (n > 0)
         {
            rem = n % 10;
            rev = (rev * 10) + rem;
            n = n / 10;
         }
         if (temp == rev)
            Console.WriteLine("The given number {0} is palindrome", temp);
         else
            Console.WriteLine("The given number {0} is not a palindrome", temp);
         Console.ReadLine();
      }
   }
}
```

Result:



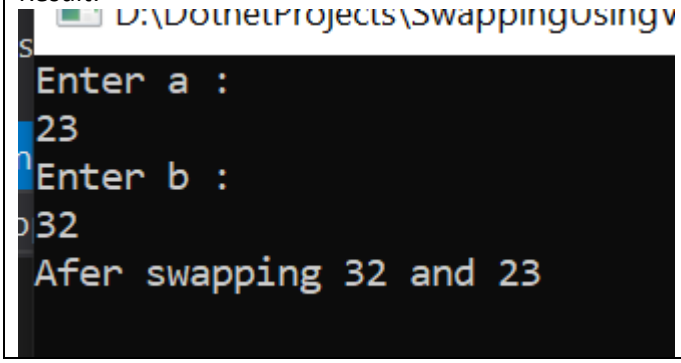
Program 18:

Write a c# program for swapping using variable

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace SwappingUsingVariable
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int temp, a, b;
         Console.WriteLine("Enter a :");
         a = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter b :");
         b = Convert.ToInt32(Console.ReadLine());
         temp = a;
         a = b;
         b = temp;
         Console.WriteLine("Afer swapping {0} and {1}", a, b);
         Console.ReadLine();
      }
   }
}
```

Result:



Program 19:

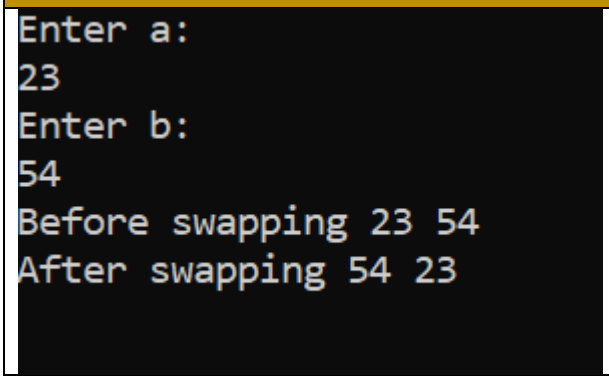
Write a C# program to swap numbers without using variable

Code:

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

```
using System.Text;
using System.Threading.Tasks;
namespace swap_without_variable
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int a, b;
         Console.WriteLine("Enter a:");
         a = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter b:");
         b = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Before swapping {0} {1}", a, b);
         a = a + b;
         b = a - b;
         a = a - b;
         Console.WriteLine("After swapping {0} {1}", a, b);
         Console.ReadLine();
      }
   }
}
```

Result:



Program 20:

Write a C# program to print star pattern

Code:

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

```
namespace PrintingStars
{
   internal class Program
   {
      static void Main(string[] args)
      {
         int n, i, j;
         Console.WriteLine("Enter no. of rows");
         n = Convert.ToInt16(Console.ReadLine());
         for (i = 1; i <= n; i++)
         {
            Console.WriteLine("*");
         }
         Console.ReadLine();
      }
   }
}
```

Result: