| **20 C # Programs**  **Done by**  **M Mary Margarette** |
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| Program : 1 |
| --- |
| Write a C# Program to print a multiplication table of a given number. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_2\_Project\_4  {  internal class Program  {  static void Main(string[] args)  {  int num, i;  Console.WriteLine("Enter a number");  num=Convert.ToInt32(Console.ReadLine());  for (i = 1; i <= 10; i++)  {  Console.WriteLine(num+"x"+i+"=" + num\*i);  }  Console.ReadLine();  }  }  } |
| Output : |
|  |

| Program : 2 |
| --- |
| Write a C# Program to print factorial of given number. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_2\_Project\_2  {  internal class Program  {  static void Main(string[] args)  {  int i, fact = 1, num;  Console.WriteLine("enter a number");  num= Convert.ToInt32(Console.ReadLine());  for (i = 1; i <= num; i++)    {  fact = fact \* i;  }  Console.WriteLine(fact);  Console.ReadLine();  }  }  } |
| Output : |
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| 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 Day\_2\_Project\_1  {  internal class Program  {  static void Main(string[] args)  {  int i,sum = 0,input;  Console.WriteLine("enter numbers");  input = Convert.ToInt32(Console.ReadLine());  for (i = 1; i <=input; i++)  {  sum = sum + i;  }  Console.WriteLine(sum);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 4 |
| --- |
| Write a C# Program to print factorial of a number using function . |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace fact\_using\_func  {  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("Factorial of {0} = {1}", n,Factorial(n));  }  static void Main(string[] args)  {  int n = 8 , n1 = 9, n2 = 7;  Print(n);  Print(n1);  Print(n2);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 5 |
| --- |
| Write a C# Program to print factorial of a number using Recursion. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Fact\_Recursion  {  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 = 8, n1=6, n2=4;  print(n);  print(n1);  print(n2);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 6 |
| --- |
| 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 Day\_2\_Project\_3  {  internal class Program  {  static void Main(string[] args)  {  int i, num;  Console.WriteLine("enter a number");  num=Convert.ToInt32(Console.ReadLine());  for(i=1;i<=num;i++)  {  if(num%i==0)  Console.WriteLine(i);  }  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 7 |
| --- |
| Write a C# Program to print Power of given number.(a power b) |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day\_1\_Project\_2  {  internal class Program  {  static void Main(string[] args)  {  int fn, sn, p = 1;  Console.WriteLine("enter number");  fn = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("enter number");  sn = Convert.ToInt32(Console.ReadLine());  for (int i = 1; i <= sn; i++)  p = p \* fn;  Console.WriteLine("Power =" + p);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 8 |
| --- |
| Write a C# program to print whether a given num is prime or not ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Prime  {  internal class Program  {  static void Main(string[] args)  {  int input,i,count = 0;  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("The given input {0} is a prime", input);  else  Console.WriteLine("The given input {0} is not a prime", input);  Console.ReadLine();  }  }  } |
| Output : |
|  |

| Program : 9 |
| --- |
| Write a C# program to check whether a given num is prime or not ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace prime\_check  {  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();  }  }  } |
| Output : |
|  |

| Program : 10 |
| --- |
| Write a C# program to print prime numbers in a given range ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace prime\_in\_range  {  internal class Program  {  public 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();    }  }  } |
| Output : |
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| 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\_series  {  internal 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();  }  }  } |
| Output : |
|  |

| Program : 12 |
| --- |
| Write a C# program to check if it is an 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,rem, sum = 0;  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 a number: ");  number=Convert.ToInt32(Console.ReadLine());  if (Arm(number) == true)  Console.WriteLine("{0} is Armstrong Number", number);  else  Console.WriteLine("{0} is not Armstrong Number", number);  Console.ReadLine();  }  }  } |
| Output : |
|  |

| Program : 13 |
| --- |
| Write a C# program to check if it is an Armstrong number in a given range? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Armstrong\_in\_range  {  internal class Program  {  public static bool Arm(int number)  {  int temp, rem, sum = 0;  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();  }  }  } |
| Output : |
|  |

| Program : 14 |
| --- |
| Write a C# program to check if it is an Armstrong number? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Armstrong  {  internal class Program  {  static void Main(string[] args)  {  int n,rem, sum = 0,temp;  Console.WriteLine("Enter a number :");  n = Convert.ToInt32(Console.ReadLine());    temp = n;  while (n > 0)  {  rem = n%10;  sum = sum + (rem\*rem\*rem);  n = n / 10;  }  if (temp == sum)    Console.WriteLine("{0} Armstrong Number",temp);    else  Console.WriteLine("{0} is Not Armstrong Number",temp);  Console.ReadLine();  }  }  } |
| Output : |
|  |

| Program : 15 |
| --- |
| Write a C# program to print sum the sum of digits of a given number ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace sum\_of\_digits  {  internal class Program  {  static void Main(string[] args)  {  int n, rem, sum = 0;  Console.WriteLine("enter number");  n = Convert.ToInt32(Console.ReadLine());  int temp = n;  while (n > 0)  {  rem = n % 10;  sum=sum+rem;  n = n / 10;  }  Console.WriteLine("Sum of digits of number {0} is {1}", temp, sum);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 16 |
| --- |
| Write a C# program to reverse order of the given number? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace reverse  {  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;  }    Console.WriteLine("The reverse of {0} is {1}", temp,rev);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 17 |
| --- |
| Write a C# program to print a palindrome? |
| 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();  }  }  } |
| Output : |
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| Program : 18 |
| --- |
| Write a C# program to swap numbers using the 3rd variable ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace swap\_with\_3var  {  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());  Console.WriteLine("Before swapping {0} {1}", a, b);  temp = a;  a = b;  b = temp;  Console.WriteLine("after swapping {0} {1}", a, b);  Console.ReadLine();  }  }  } |
| Output : |
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| Program : 19 |
| --- |
| Write a C# program to swap numbers without using the 3rd variable ? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Swap\_without\_3var  {  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();  }  }  } |
| Output : |
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| Program : 20 |
| --- |
| Write a C# program to print \*(stars) in a right angled triangle manner? |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace right\_angle\_manner  {  internal class Program  {  static void Main(string[] args)  {  int n, i, j;  Console.WriteLine("Enter no.of rows");  n=Convert.ToInt32(Console.ReadLine());  for (i = 1; i <= n; i++)  {  for(j = 1; j <= i; j++)  {  Console.Write("\*");  }  Console.WriteLine();  }  Console.ReadLine();    }  }  } |
| Output : |
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