C# Exercises

1. Write a C# Sharp program to print the sum of two numbers.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int a = 5;  int b =6;  Console.WriteLine("The sum of {0} + {1} is {2}", a,b, a+b);  }  } | *The sum of 5 + 6 is 11* |

1. Write a C# Sharp program to print the result of the specified operations:

1 + 4 \* 6, ( 35+ 5 ) % 7, 14 + -4 \* 6 / 11, 2 + 15 / 6 \* 1 - 7 % 2

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int a = -1 + 4 \* 6;  int b = (35 + 5 ) % 7;  int c = 14 + -4 \* 6 / 11;  int d = 2 + 15 / 6 \* 1 - 7 % 2;  Console.WriteLine("The result is {0}, {1}, {2}, {3}", a,b,c,d); }  } | *The result is 23, 5, 12, 3* |

1. Write a C# Program to swap two numbers.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = 6;  Console.WriteLine("The first number is " + num1 + " and the second number is " + num2);  swap(num1,num2);  }    static void swap(int num1, int num2){  Console.WriteLine("Executing swap....");  int temp=num1;  num1=num2;  num2=temp;  Console.WriteLine("The first number is {0} and the second number is {1}",num1,num2);  } } | *The first number is 5 and the second number is 6*  *Executing swap…*  *The first number is 6 and the second number is 5* |

1. Write a C# Program that takes a number and prints its multiplication table.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = 6;  mult(num1);  }    static void mult(int num1){  Console.WriteLine("Printing multiplication table for number {0}" , num1);  for(int i=0;i<11;i++){  Console.WriteLine("{0} x {1} = {2}",num1,i,num1\*i);  }  }  } | *Printing multiplication table for number 5*  *5 x 0 = 0*  *5 x 1 = 5*  *5 x 2 = 10*  *5 x 3 = 15*  *5 x 4 = 20*  *5 x 5 = 25*  *5 x 6 = 30*  *5 x 7 = 35*  *5 x 8 = 40*  *5 x 9 = 45*  *5 x 10 = 50* |

1. Write a C# Program that prints the average of four numbers.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = 6;  int num3 = 7;  int num4 = 8;  aver(num1,num2,num3,num4);  }    static void aver(int num1, int num2, int num3, int num4){    int[] arr={num1,num2,num3,num4};  double total=arr.Length;  double sum= num1+num2+num3+num4;  double average=sum/total;  Console.WriteLine("The average of the numbers {0} {1} {2} {3} is {4}", num1,num2,num3,num4,average);  }  } | *The average of the numbers 5 6 7 8 is 6.5* |

1. Write a C# program that converts celsius to kelvin and fahrenheit.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  double celsius=30;  temperature(celsius);  }  static void temperature(double celsius){  double kelvin=celsius + 273.15;  double fahrenheit=celsius \* 1.8 + 32;  Console.WriteLine("The Celsius temp is: {0} degrees. Fahrenheit: {1} degrees. Kelvin: {2}  degrees. ", celsius, fahrenheit, kelvin);  }  } | *The Celsius temp is: 25 degrees. Fahrenheit: 57 degrees. Kelvin: 298.15 degrees.* |

1. Write a C# program that removes a character from a non-empty string using the index of that character.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  string practice="The\tcat &nd thE hat!";  Console.WriteLine("The sentence is as follows: {0}", removeChar(practice,5));  }  static string removeChar(string str, int n)  {  return str.Remove(n, 1);  }  } | *The sentence is as follows: The ct &nd thE hat!* |

1. Write a C# program to create a new string from a given string where the first and last characters will swap their positions.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  string practice2="Erin Bell";  swapChars(practice2);  }  static void swapChars(string str){    string str1=str.Substring(0,1); //Firstchar  string str2=str.Substring(str.Length-1); // last char  string final=str.Substring(1, str.Length-2); //Second to last  Console.WriteLine("{0}{1}{2}", str2,final,str1);  }  } | *lrin BelE* |

1. Write a C# program to check two given integers and return true if one is negative and one is positive.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = -6;  testEvenOdd(num1,num2);  }  static void testEvenOdd(int num1, int num2){  if(num1 < 0 && num2 > 0){  Console.WriteLine("True");  }  if(num1 > 0 && num2 < 0){  Console.WriteLine("True");  }  else{  Console.WriteLine("False");  }  }  } | *True.* |

1. Write a C# program to compute the sum of two given integers, if two values are equal then return the triple of their sum.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num5 = 5;  int num2 = -6;  tripleSum(num1,num2);  tripleSum(num1,num5);  }  static void tripleSum(int num1, int num2){  if(num1.Equals(num2)){  Console.WriteLine("{0} and {1} are equal. Triple of the sum of these numbers is: {2}",num1,num2,(num1+num2)\*3);  }  else{  Console.WriteLine("These following values {0} and {1} are not equal", num1,num2);  }  }  } | *5 and 5 are equal. Triple of the sum of these numbers is: 30* |

1. Write a C# program to get the absolute value of the difference between two given numbers. Return double the absolute value of the difference if the first number is greater than second number

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = -6;  int num3 = 7;  int num4 = 8;  int num5 = 5;  doubleAbs(num1,num2);  doubleAbs(num2,num3);  }  static void doubleAbs(int num1, int num2){  if(num1>num2)  Console.WriteLine("The first number is greater. Equation 2 \* Abs|{0} - {1}|= {2}", num1,num2,2 \* Math.Abs(num1-num2));  else{  Console.WriteLine("The second number is greater. Equation 2 \* Abs|{0} - {1}|= {2}", num1, num2, 2 \* Math.Abs(num1-num2));  }  }  } | *The first number is greater. Equation 2 \* Abs|5 - -6|= 22*  *The second number is greater. Equation 2 \* Abs|-6 - 7|= 26* |

1. Write a C# program to check the sum of the two given integers and return true if one of the integer is 20 or if their sum is 20.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = -6;  int num3 = 7;  int num4 = 8;  int num5 = 5;  int num6 = 20;  check20(num1,num6);  }  static void check20(int num1,int num2){  if(num1+num2==20){  Console.WriteLine("true. Sum of the numbers {0}+{1} equals 20",num1,num2);  }  if(num1==20){  Console.WriteLine("true.The first number is {0}", num1);  }  if(num2==20){  Console.WriteLine("true. The second number is {0}", num2);  }  else{  Console.WriteLine("false");  }  }  } | *true. The second number is 20* |

1. Write a C# program to check if a given integer is within 5 of 100 or 200.

|  |  |
| --- | --- |
| Code Snippit | Output |
| using System;  public class Test  {  public static void Main()  {  int num1 = 5;  int num2 = -6;  int num3 = 7;  int num4 = 8;  int num5 = 5;  int num6 = 20;  check20(num1,num6);  }  static void check20(int num1,int num2){  if(num1+num2==20){  Console.WriteLine("true. Sum of the numbers {0}+{1} equals 20",num1,num2);  }  if(num1==20){  Console.WriteLine("true.The first number is {0}", num1);  }  if(num2==20){  Console.WriteLine("true. The second number is {0}", num2);  }  else{  Console.WriteLine("false");  }  }  } | *true. The second number is 20* |