/\*

1. Write a C# Sharp program to print Hello and your name in a separate line. Expected Output : Hello: Atmiya Students

\*/

using System;

class pro1{

static void Main(){

Console.WriteLine("Hello");

Console.WriteLine("Atmiya Students…");

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

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

\*/

using System;

class sum

{

static void Main()

{

int i = 10, j = 5;

Console.WriteLine("i+j={0}",i+j);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

3) Write a C# Sharp program to print the result of dividing two numbers.

\*/

using System;

class Div

{

static void Main()

{

int i = 10, j = 5;

Console.WriteLine("i/j={0}", i / j);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

4) Write a C# Sharp program to print the result of the specified operations. Test data:

• -1 + 4 \* 6 • ( 35+ 5 ) % 7

• 14 + -4 \* 6 / 11

• 2 + 15 / 6 \* 1 - 7 % 2

Expected Output: 23 5 12 3

\*/

using System;

Class operations

{

static void Main()

{

int i = -1 + 4 \* 6,

j = (35 + 5) % 7,

k = 14 + -4 \* 6 / 11,

l = 2 + -15 / 6 \* 1 - 7 % 2;

Console.WriteLine(i);

Console.WriteLine(j);

Console.WriteLine(k);

Console.WriteLine(l);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

5) Write a C# Sharp program to swap two numbers. Test Data: Input the First Number : 5 Input the Second Number : 6 Expected Output: After Swapping : First Number : 6 Second Number : 5

\*/

using System;

class swap

{

static void Main()

{

int i = 10, j = 6, k = 0;

Console.WriteLine("Before Swepping...");

Console.WriteLine("i={0}", i);

Console.WriteLine("j={0}", j);

Console.WriteLine("After Swepping");

k = i;

i = j;

j = k;

Console.WriteLine("i={0}", i);

Console.WriteLine("j={0}", j);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

6) Write a C# Sharp program to print the output of multiplication of three numbers which will be entered by the user. Test Data: Input the first number to multiply: 2 Input the second number to multiply: 3 Input the third number to multiply: 6 Expected Output: 2 x 3 x 6 = 36

\*/

using System;

class mul

{

static void Main()

{

int a, b, c;

System.Console.WriteLine("Enter First Number");

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

System.Console.WriteLine("Enter Second Number");

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

System.Console.WriteLine("Enter Third Number");

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

int res = a \* b \* c;

Console.WriteLine(res);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

7) Write a C# Sharp program to print on screen the output of adding, subtracting, multiplying and dividing of two numbers which will be entered by the user. Test Data: Input the first number: 25 Input the second number: 4 Expected Output: 25 + 4 = 29 25 - 4 = 21 25 x 4 = 100 25 / 4 = 6 25 mod 4 = 1

\*/

using System;

class pro7

{

static void Main()

{

int a, b;

System.Console.WriteLine("Enter First Number:");

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

System.Console.WriteLine("Enter Second Number:");

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

Console.WriteLine("sum of 2 Nmuber={0}", a + b);

Console.WriteLine("subtraction of 2 Nmuber={0}", a - b);

Console.WriteLine("mul of 2 Nmuber={0}", a \* b);

Console.WriteLine("Div of 2 Nmuber={0}", a / b);

Console.WriteLine("moduals of 2 Nmuber={0}", a % b);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

8) Write a C# Sharp program that takes a number as input and print its multiplication table. Test Data: Enter the number: 5 Expected Output: 5 \* 0 = 0 5 \* 1 = 5 5 \* 2 = 10 5 \* 3 = 15 .... 5 \* 10 = 50

\*/

using System;

namespace Tutorialsrack

{

class Program

{

static void Main(string[] args)

{

int num,product;

Console.Write("Enter the Number to Print its Multiplication Table: ");

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

Console.WriteLine("\nMultiplication Table For {0}: ",num);

for(int i = 1; i <= 10; i++)

{

product = num \* i;

Console.WriteLine("{0} x {1} = {2}",num,i,product);

}

//Hit ENTER to exit the program

Console.ReadKey();

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

9.) Write a C# Sharp program that takes four numbers as input to calculate and print the average. Test Data: Enter the First number: 10 Enter the Second number: 15 Enter the third number: 20 Enter the four number: 30 Expected Output: The average of 10 , 15 , 20 , 30 is: 18

\*/

using System;

using System.IO;

public class Exercise9

{

public static void Main()

{

double number1,number2,number3,number4;

Console.Write("Enter the First number: ");

number1 = Convert.ToDouble(Console.ReadLine());

Console.Write("Enter the Second number: ");

number2 = Convert.ToDouble(Console.ReadLine());

Console.Write("Enter the third number: ");

number3 = Convert.ToDouble(Console.ReadLine());

Console.Write("Enter the fourth number: ");

number4 = Convert.ToDouble(Console.ReadLine());

double result = (number1 + number2 + number3 + number4) / 4;

Console.WriteLine("The average of {0}, {1}, {2}, {3} is: {4} ",

number1, number2, number3, number4, result);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

10.) Write a C# Sharp program to that takes three numbers(x,y,z) as input and print the output of (x+y).z and x.y + y.z. Test Data: Enter first number - 5 Enter second number - 6 Enter third number - 7 Expected Output: Result of specified numbers 5, 6 and 7, (x+y).z is 77 and x.y + y.z is 72

\*/

using System;

Class ex10{

int x, y, z;

Console.WriteLine(“1 : Please Enter a numeric value”);

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

Console.WriteLine(“2 : Please Enter a numeric value”);

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

Console.WriteLine(“3 : Please Enter a numeric value”);

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

Console.WriteLine(“({0} + {1}) x {2} = {3}”, x, y, z, (x+y) \* z );

Console.WriteLine(“{0} x {1} + {0} x {2} = {3}”, x, y, z, x\*y + y\*z);

Console.ReadLine();

}

---------------------------------------------------------------------------------------------------------------------------

/\*

11.) Write a C# Sharp program that takes an age (for example 20) as input and prints something as "You look older than 20". Test Data: Enter your age – 25 Expected Output: You look older than 25

\*/

using System;

public class Exercise11

{

public static void Main()

{

int age;

Console.Write("Enter your age ");

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

Console.Write("You look younger than {0} ",age);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

12.) . Write a C# program to that takes a number as input and display it four times in a row (separated by blank spaces), and then four times in the next row, with no separation. You should do it two times: Use Console. Write and then use {0}. Test Data: Enter a digit: 25 Expected Output:

25 25 25 25

25252525

25 25 25 25

25252525

\*/

int num;

string spaces = “”, noSpaces = “”;

Console.WriteLine(“Please enter a numeric value”);

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

for (int i = 0; i < 2; i++)

{

for (int j = 0; j < 4; j++)

{

if (i == 0)

{

spaces += string.Format(“{0} “, num);

}

else

{

noSpaces += num;

}

}

}

Console.WriteLine(“{0}\n{1}\n{0}\n{1}”, spaces, noSpaces);

Console.Read();

---------------------------------------------------------------------------------------------------------------------------

/\*

13.) Write a C# program that takes a number as input and then displays a rectangle of 3 columns wide and 5 rows tall using that digit. Test Data: Enter a number: 5

Expected Output:

555

5 5

5 5

5 5

555

\*/

using System;

Class ex13{

int num;

Console.WriteLine(“Please enter a numeric value”);

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

Console.WriteLine(“\n\n”);

for (int i = 0; i < 5; i++)

{

if (i == 0 || i == 4)

{

Console.WriteLine(“{0}{0}{0}”, num);

}

else

{

Console.WriteLine(“{0} {0}”, num);

}

}

Console.Read();

}

---------------------------------------------------------------------------------------------------------------------------

/\*

14.) Write a C# program to convert from celsius degrees to Kelvin and Fahrenheit. Test Data: Enter the amount of celsius: 30 Expected Output: Kelvin = 303 Fahrenheit = 86

\*/

using System;

Class ex14{ int celcius;

Console.WriteLine(“Please insert a value of Celcius”);

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

Console.WriteLine(“the amount of {0} Celcius is:\nFahrenheit: {1}\nKelvin: {2}”,

celcius, Convert.ToString(CelciusFahrenheit(celcius)), CelciusKelvin(celcius));

Console.Read();

}

static double FahrenheitCelcius(int Fahrenheit)

{

return (Fahrenheit – 32) \* 5/9;

}

static double KelvinCelcius (int Kelvin)

{

return Kelvin – 273.15;

}

static double CelciusFahrenheit(int Celcius)

{

return (Celcius \* 9 / 5) + 32;

}

static double KelvinFahrenheit(int Kelvin)

{

return (Kelvin – 273.15) \* 9 / 5 + 32;

}

static double FahrenheitKelvin(int Fahrenheit)

{

return (Fahrenheit – 32) \* 5 / 9 + 273.15;

}

static double CelciusKelvin(int Celcius)

{

return Celcius + 273.15;

} }

---------------------------------------------------------------------------------------------------------------------------

/\*

15.) Write a C# program remove specified a character from a non-empty string using index of a character. Test Data: Atmiya University Sample Output: Atiya University Atmiya niversity

\*/

using System;

using System.Collections.Generic;

public class Exercise15 {

static void Main(string[] args)

{

Console.WriteLine(remove\_char("w3resource", 1));

Console.WriteLine(remove\_char("w3resource", 9));

Console.WriteLine(remove\_char("w3resource", 0));

}

public static string remove\_char(string str, int n)

{

return str.Remove(n, 1);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

16.) Write a C# program to create a new string from a given string (length 1 or more) with the first character added at the front and back. Sample Output: Input a string : The quick brown fox jumps over the lazy dog. TThe quick brown fox jumps over the lazy dog.T

\*/

using System;

using System.Text;

public class Exercise17 {

static void Main(string[] args)

{

string str;

int l= 0;

Console.Write("Input a string : ");

str = Console.ReadLine();

if (str.Length>=1)

{

var s = str.Substring(0,1);

Console.WriteLine(s + str + s);

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

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

Sample Output:

Input first integer: -5

Input second integer: 25

Check if one is negative and one is positive: True

\*/

using System;

using System.Collections.Generic;

public class Exercise18 {

static void Main(string[] args)

{

Console.WriteLine("\nInput first integer:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input second integer:");

int y = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Check if one is negative and one is positive:");

Console.WriteLine((x < 0 && y > 0) || (x > 0 && y < 0));

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

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

\*/

using System;

namespace exercises

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine(test(1,2));

Console.WriteLine(test(3,2));

Console.WriteLine(test(2,2));

Console.ReadLine();

}

public static int test(int x, int y)

{

return x == y ? (x + y)\*3 : x + y;

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

19.) 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.

\*/

using System;

using System.Collections.Generic;

public class Exercise20 {

static void Main(string[] args)

{

Console.WriteLine(result(13, 40));

Console.WriteLine(result(50, 21));

Console.WriteLine(result(0, 23));

}

public static int result(int a, int b)

{

if (a > b)

{

return (a - b)\*2;

}

return b - a;

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

20.) 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.

\*/

using System;

namespace PracticeEnvironment

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Input first number:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input second number:");

int y = Convert.ToInt32(Console.ReadLine());

Console.WriteLine(IsTwenty());

bool IsTwenty()

{

if (x == 20 || y == 20)

return true;

else if (x + y == 20)

return true;

else

return false;

}

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

21.) Write a C# program to check if an given integer is within 20 of 100 or 200. Sample Output: Input an integer: 25 False

\*/

using System;

namespace PracticeEnvironment

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Input first number:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input second number:");

int y = Convert.ToInt32(Console.ReadLine());

Console.WriteLine(IsTwenty());

bool IsTwenty()

{

if (x == 20 || y == 20)

return true;

else if (x + y == 20)

return true;

else

return false;

}

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

22.) Write a C# program to convert a given string into lowercase. Sample Output: write a c# sharp program to display the following pattern using the alphabet.

\*/

using System;

using System.Collections.Generic;

public class Exercise22 {

static void Main(string[] args) {

Console.WriteLine("\nInput an integer:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine(result(x));

}

public static bool result(int n) {

if (Math.Abs(n - 100) <= 20 || Math.Abs(n - 200) <= 20)

return true;

return false;

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

23.) Write a C# program to print the odd numbers from 1 to 99. Prints one number per line. Sample Output: Odd numbers from 1 to 99. Prints one number per line. 1 3 5 7 9 ... 95 97 99

\*/

using System;

public class Program

{

public static void Main()

{

string str;

Console.WriteLine("Enter the String in Uppercase :");

str = Console.ReadLine();

Console.WriteLine("String in LowerCase : {0}", str.ToLower());

Console.ReadLine();

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

24.) Write a C# program to compute the sum of the first 500 prime numbers. Sample Output: Sum of the first 500 prime numbers: 3682913

\*/

using System;

public class Exercise25

{

public static void Main()

{

Console.WriteLine("Odd numbers from 1 to 99. Prints one number per line.");

for (int n = 1; n < (99 + 1); n++)

{

if (n % 2 != 0)

{

Console.WriteLine(n.ToString());

}

}

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

25.) Write a C# program and compute the sum of the digits of an integer. Sample Output: Input a number(integer): 12 Sum of the digits of the said integer: 3

\*/

using System;

public class Exercise26

{

public static void Main()

{

Console.WriteLine("\nSum of the first 500 prime numbers: ");

long sum = 0;

int ctr = 0;

int n = 2;

while (ctr < 500)

{

if (isPrime(n))

{

sum += n;

ctr++;

}

n++;

}

Console.WriteLine(sum.ToString());

}

public static bool isPrime(int n)

{

int x = (int)Math.Floor(Math.Sqrt(n));

if (n == 1) return false;

if (n == 2) return true;

for (int i = 2; i <= x; ++i)

{

if (n % i == 0) return false;

}

return true;

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

26. Write a C# program to reverse the words of a sentence.

Sample Output:

Original String: Display the pattern like pyramid using the alphabet.

Reverse String: alphabet. the using pyramid like pattern the Display

\*/

using System;

public class a26

{

public static void Main(String[] args)

{

string line = "Display the pattern like pyramid using the alphabet.";

Console.WriteLine("\nOriginal String: " + line);

string result = "";

List < string > wordsList = new List < string > ();

string[] words = line.Split(new []{" "}, StringSplitOptions.None);

for (int i = words.Length - 1; i >= 0; i--)

{

result += words[i] + " ";

}

wordsList.Add(result);

foreach(String s in wordsList)

{

Console.WriteLine("\nReverse String: " + s);

}

}

}

------------------------------------------------------------------------------------------------------------------

/\*

27. Write a C# program to find the size of a specified file in bytes.

Sample Output:

Size of a file: 31

\*/

using System;

public class a27

{

public static void Main(String[] args)

{

FileInfo f = new FileInfo("/home/students/abc.txt");

Console.WriteLine("\nSize of a file: "+f.Length.ToString());

}

}

------------------------------------------------------------------------------------------------------------------

/\*

28. Write a C# program to convert a hexadecimal number to decimal number.

Sample Output:

Hexadecimal number: 4B0

Convert to Decimal number: 1200

\*/

using System;

public class a28

{

public static void Main(String[] args)

{

string hexval = "4B0";

Console.WriteLine("Hexadecimal number: "+hexval);

int decValue = int.Parse(hexval, System.Globalization.NumberStyles.HexNumber);

Console.WriteLine("Convert to-");

Console.WriteLine("Decimal number: "+decValue);

}

}

------------------------------------------------------------------------------------------------------------------

/\*

29. Write a C# program to multiply corresponding elements of two arrays of integers.

Sample Output:

Array1: [1, 3, -5, 4]

Array2: [1, 4, -5, -2]

Multiply corresponding elements of two arrays:

1 12 25 -8

\*/

using System;

class a29

{

static void Main(String[] args)

{

array a1 = a1[1, 3, -5, 4];

array a2 = a2[1, 4, -5, -2];

System.Console.WriteLine(a1[0] \* a2[0]);

System.Console.WriteLine(a1[1] \* a2[1]);

System.Console.WriteLine(a1[2] \* a2[2]);

System.Console.WriteLine(a1[3] \* a2[3]);

}

}

------------------------------------------------------------------------------------------------------------------

/\*

30. Write a C# program to create a new string of four copies, taking last four characters from a

given string. If the length of the given string is less than 4 return the original one.

Sample Output:

Input a string : The quick brown fox jumps over the lazy dog.

dog.dog.dog.dog.

\*/

using System;

public class a30 {

static void Main(string[] args)

{

string str;

int l= 0;

Console.Write("Input a string : ");

str = Console.ReadLine();

if (str.Length>4)

{

Console.WriteLine(str.Length < 4 ? str + str + str : str.Substring(str.Length - 4)+ str.Substring(str.Length - 4) + str.Substring(str.Length - 4) + str.Substring(str.Length - 4));

}

}

}

------------------------------------------------------------------------------------------------------------------

/\*

31. Write a C# program to check if a given positive number is a multiple of 3 or a multiple of 7.

Sample Output:

Input first integer:

15

True

\*/

using System;

public class a31 {

static void Main(string[] args)

{

Console.WriteLine("\nInput first integer:");

int x = Convert.ToInt32(Console.ReadLine());

if (x > 0)

{

Console.WriteLine(x % 3 == 0 || x % 7 == 0);

}

}

}

----------------------------------------------------------------------------------------------------------------

/\*

32. Write a C# program to check if a string starts with a specified word.

Note: Suppose the sentence starts with "Hello"

Sample Data: string1 = "Hello how are you?"

Result: Hello.

Sample Output:

Input a string : Hello how are you?

True

\*/

using System;

public class a32 {

static void Main(String[] args)

{

string str;

Console.Write("Input a string : ");

str = Console.ReadLine();

Console.WriteLine((str.Length < 6 && str.Equals("Hello")) || (str.StartsWith("Hello") && str[5] == ' '));

}

}

------------------------------------------------------------------------------------------------------------------

/\*

33. Write a C# program to check two given numbers where one is less than 100 and other is

greater than 200.

Sample Output:

Input a first number(<100): 75

Input a second number(>100): 250

True

\*/

using System;

public class a33 {

static void Main(String[] args)

{

Console.Write("Input a first number(<100): ");

int m = Convert.ToInt32(Console.ReadLine());

Console.Write("Input a second number(>200): ");

int n = Convert.ToInt32(Console.ReadLine());

Console.WriteLine((m < 100 && n > 200));

}

}

------------------------------------------------------------------------------------------------------------------

/\*

34. Write a C# program to check if an integer (from the two given integers) is in the range -10 to

10.

Sample Output:

Input a first number: -5

Input a second number: 8

True

\*/

using System;

public class a34 {

static void Main(String[] args)

{

Console.Write("Input a first number: ");

int m = Convert.ToInt32(Console.ReadLine());

Console.Write("Input a second number: ");

int n = Convert.ToInt32(Console.ReadLine());

Console.WriteLine(((m >= -10 && m <= 10)) || ((n >= -10 && n <= 10)));

}

}

------------------------------------------------------------------------------------------------------------------

/\*

35. Write a C# program to check if "HP" appears at second position in a string and returns the

string without "HP".

Test Data: PHP Tutorial

Sample Output:

P Tutorial

\*/

using System;

public class a35 {

static void Main(String[] args)

{

string str= "PHP Tutorial";

Console.WriteLine((str.Substring(1, 2).Equals("HP") ? str.Remove(1, 2) : str));

}

}

------------------------------------------------------------------------------------------------------------------

/\*

36. Write a C# program to find the largest and lowest values from three integer values.

Test Data:

Input first integer:

15

Input second integer:

25

Input third integer:

30

Sample Output

Largest of three: 30

Lowest of three: 15

\*/

using System;

public class a36 {

static void Main(String[] args)

{

Console.WriteLine("\nInput first integer:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input second integer:");

int y = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input third integer:");

int z = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Largest of three: "+Math.Max(x, Math.Max(y, z)));

Console.WriteLine("Lowest of three: "+Math.Min(x, Math.Min(y, z)));

}

}

-----------------------------------------------------------------------------------------------------------------

/\*

37. Write a C# program to check the nearest value of 20 of two given integers and return 0 if two

numbers are same.

Test Data:

Input first integer:

15

Input second integer:

12

Sample Output

15

\*/

using System;

public class a37

{

public static void Main(String[] args )

{

Console.WriteLine("\nInput first integer:");

int x = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Input second integer:");

int y = Convert.ToInt32(Console.ReadLine());

int n = 20;

var val1 = Math.Abs(x - n);

var val2 = Math.Abs(y - n);

Console.WriteLine(val1 == val2 ? 0 : (val1 < val2 ? x : y));

}

}

------------------------------------------------------------------------------------------------------------------

/\*

38.) Write a C# program to count a specified number in a given array of integers. Test Data: Input an integer: 5 Sample Output Number of 5 present in the said array: 2

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Exercise38 {

static void Main(string[] args)

{

Console.WriteLine("\nInput an integer:");

int x = Convert.ToInt32(Console.ReadLine());

int[] nums = {1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 9};

Console.WriteLine("Number of " + x + " present in the said array:");

Console.WriteLine(nums.Count(n => n == x));

}

}

--------------------------------------------------------------------------------------------------------------------------

/\*

39.) . Write a C# program to check if a number appears as either the first or last element of an array of integers and the length is 1 or more. Test Data: Input an integer: 25 Sample Output False

\*/

class ArrayTest

{

static void Main()

{

// Declare the array of two elements.

int[][] arr = new int[2][];

// Initialize the elements.

arr[0] = new int[5] { 1, 3, 5, 7, 9 };

arr[1] = new int[4] { 2, 4, 6, 8 };

// Display the array elements.

for (int i = 0; i < arr.Length; i++)

{

System.Console.Write("Element({0}): ", i);

for (int j = 0; j < arr[i].Length; j++)

{

System.Console.Write("{0}{1}", arr[i][j], j == (arr[i].Length - 1) ? "" : " ");

}

System.Console.WriteLine();

}

// Keep the console window open in debug mode.

System.Console.WriteLine("Press any key to exit.");

System.Console.ReadKey();

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

40.) Write a C# program to compute the sum of all the elements of an array of integers. Test Data: Array1: [1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 1] Sample Output Sum: 69

\*/

using System;

class Program

{

static void Main()

{

int[] arr = new int[100];

int i, num, sum = 0;

////Reads size and elements in array

Console.WriteLine("Enter size of the array: ");

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

Console.WriteLine("Enter "+num+" elements in the array: ");

for(i=0; i<num; i++)

{

arr[i] = Convert.ToInt32(Console.ReadLine());

}

//Adding all elements

for(i=0; i<num; i++)

{

sum = sum + arr[i]; // Calculating sum

}

---------------------------------------------------------------------------------------------------------------------------

/\*

41.) Write a C# program to check if the first element or the last element of the two arrays ( length 1 or more) are equal. Test Data: Array1: [1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 1] Array2: [1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 5] Check if the first element or the last element of the two arrays ( leng th 1 or more) are equal. Sample Output True

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Exercise41

{

public static void Main()

{

int[] nums1 = {1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 1};

Console.WriteLine("\nArray1: [{0}]", string.Join(", ", nums1));

int[] nums2 = {1, 2, 2, 3, 3, 4, 5, 6, 5, 7, 7, 7, 8, 8, 5};

Console.WriteLine("\nArray2: [{0}]", string.Join(", ", nums2));

Console.WriteLine("\nCheck if the first element or the last element of the two arrays ( length 1 or more) are equal.");

Console.WriteLine((nums1[0].Equals(nums2[0])) || (nums1[nums1.Length - 1].Equals(nums2[nums2.Length - 1])));

}

}

Console.WriteLine("Sum of all elements of array: "+sum);

Console.ReadLine();

}

---------------------------------------------------------------------------------------------------------------------------

/\*

42.) Write a C# program to rotate an array (length 3) of integers in left direction. Test Data: Array1: [1, 2, 8] After rotating array becomes: [2, 8, 1]

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Exercise42

{

public static void Main()

{

int[] nums = {1, 2, 8};

Console.WriteLine("\nArray1: [{0}]", string.Join(", ", nums));

var temp = nums[0];

for (var i = 0; i < nums.Length - 1; i++)

{

nums[i] = nums[i + 1];

}

nums[nums.Length - 1] = temp;

Console.WriteLine("\nAfter rotating array becomes: [{0}]", string.Join(", ", nums));

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

43.) Write a C# program to get the larger value between first and last element of an array (length 3) of integers. Test Data: Array1: [1, 2, 5, 7, 8] Highest value between first and last values of the said array: 8

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Exercise43

{

public static void Main()

{

int[] nums = {1, 2, 5, 7, 8};

Console.WriteLine("\nArray1: [{0}]", string.Join(", ", nums));

var h\_val = nums[0];

for (var i = 0; i < nums.Length; i++)

{

if (nums[i] > nums[0])

h\_val = nums[i];

}

Console.WriteLine("\nHighest value between first and last values of the said array: {0}", h\_val);

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

44.) Write a C# program to create a new array of length containing the middle elements of three arrays (each length 3) of integers. Test Data: Array1: [1, 2, 5] Array2: [0, 3, 8] Array3: [-1, 0, 2] New array: [2, 3, 0]

\*/

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Exercise44

{

public static void Main()

{

int[] array1 = {1, 2, 5};

Console.WriteLine("\nArray1: [{0}]", string.Join(", ", array1));

int[] array2 = {0, 3, 8};

Console.WriteLine("\nArray2: [{0}]", string.Join(", ", array2));

int[] array3 = {-1, 0, 2};

Console.WriteLine("\nArray3: [{0}]", string.Join(", ", array3));

int[] new\_array = { array1[1], array2[1], array3[1] };

Console.WriteLine("\nNew array: [{0}]", string.Join(", ", new\_array));

}

}

---------------------------------------------------------------------------------------------------------------------------

/\*

45.) Write a C# program to check if an array contains an odd number. Test Data: Original array: [2, 4, 7, 8, 6] Check if an array contains an odd number? True

\*/

using System;

class GFG {

// Function to find the element

// occurring odd number of times

static int getOddOccurrence(int[] arr, int arr\_size)

{

for (int i = 0; i < arr\_size; i++) {

int count = 0;

for (int j = 0; j < arr\_size; j++) {

if (arr[i] == arr[j])

count++;

}

if (count % 2 != 0)

return arr[i];

}

return -1;

}

// Driver code

public static void Main()

{

int[] arr = { 2, 3, 5, 4, 5, 2, 4, 3, 5, 2, 4, 4, 2 };

int n = arr.Length;

Console.Write(getOddOccurrence(arr, n));

}

}