**Question11**

using System;

class Program

{

static void Main(string[] args)

{

static void Question11();

}

static void Question11()

{

int[] numbers = new int[5] { 12, 9, 67, 5, 56 };

int counter = 0;

Console.Write("Kindly Enter the number you want to Search ");

Console.WriteLine();

int N = int.Parse(Console.ReadLine());

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

{

if (numbers[i] == N)

{

Console.Write("The number is present");

Console.ReadKey();

}

else

{

counter += 1;

}

}

if (counter == 5)

{

Console.Write("Error: Number not found");

Console.ReadKey();

}

}

}

**Question 12**

using System;

class Program

{

static void Main(string[] args)

{

static void Question12()

{

string reversed = string.Empty;

Console.WriteLine("Kinldy Enter your string");

string user = Console.ReadLine();

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

{

reversed += user[i];

}

if (reversed == user) { Console.Write("The String is Palindrome"); Console.ReadKey(); }

else { Console.Write("The String is not Palindrome"); Console.ReadKey(); }

}

}

**Question 13**

{

using System;

class Program

{

static void Main(string[] args)

{

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

int smallest = FindSmallestNumber(numbers); // Call FindSmallestNumber method and store the result in smallest variable

int largest = FindLargestNumber(numbers); // Call FindLargestNumber method and store the result in largest variable

Console.WriteLine("Smallest number: " + smallest);

Console.WriteLine("Largest number: " + largest);

}

static int FindSmallestNumber(int[] array)

{

int smallest = array[0]; // Assume the first element of the array is the smallest

for (int i = 1; i < array.Length; i++)

{

if (array[i] < smallest) // If a smaller number is found, update the smallest variable

{

smallest = array[i];

}

}

return smallest; // Return the smallest number

}

static int FindLargestNumber(int[] array)

{

int largest = array[0]; // Assume the first element of the array is the largest

for (int i = 1; i < array.Length; i++)

{

if (array[i] > largest) // If a larger number is found, update the largest variable

{

largest = array[i];

}

}

return largest; // Return the largest number

}

}

}

**Q 14**

using System;

class Program

{

static void Main(string[] args)

{

Console.Write("Enter the height of the triangle: ");

int height = int.Parse(Console.ReadLine());

for (int row = 1; row <= height; row++) // Loop for each row

{

for (int col = 1; col <= row; col++) // Loop to print "\*" for each column in the row

{

Console.Write("\*");

}

Console.WriteLine(); // Move to the next line after printing each row

}

}

}

Q15

using System;

class Program

{

static void Main(string[] args)

{

Console.Write("Enter the number of rows: ");

int n = int.Parse(Console.ReadLine());

for (int row = 1; row <= n; row++) // Loop for each row

{

// Print spaces before the stars

for (int space = 1; space <= n - row; space++)

{

Console.Write(" ");

}

// Print stars

for (int star = 1; star <= 2 \* row - 1; star++)

{

Console.Write("\*");

}

// Move to the next line after printing each row

Console.WriteLine();

}

}

}

**Question 16**

using System;

class Program

{

static void Main(string[] args){

static void Question16();

}

static void Question16()

{

string reversed = string.Empty;

Console.WriteLine("Kinldy Enter your string");

string user = Console.ReadLine();

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

{

reversed += user[i];

}

Console.Write("The reversed string is : " + reversed);

Console.ReadKey();

}

}

**Q18**

using System;

class Program

{

static void Main(string[] args)

{

Console.Write("Enter a number: ");

int number = int.Parse(Console.ReadLine());

if (IsPerfectNumber(number))

{

Console.WriteLine(number + " is a perfect number.");

}

else

{

Console.WriteLine(number + " is not a perfect number.");

}

}

static bool IsPerfectNumber(int number)

{

int sum = 0;

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

{

if (number % i == 0)

{

sum += i; // Add the divisor to the sum if it evenly divides the number

}

}

return sum == number; // Check if the sum of divisors equals the number itself

}

}

**Q19**

using System;

class Program

{

static void Main(string[] args)

{

Console.Write("Enter the number of rows: ");

int n = int.Parse(Console.ReadLine());

for (int row = 1; row <= n; row++) // Loop for each row

{

for (int num = 1; num <= row; num++) // Loop to print numbers from 1 to row

{

Console.Write(num);

}

Console.WriteLine(); // Move to the next line after printing each row

}

}

}

**Q20**

using System;

class Program

{

static void Main(string[] args)

{

string str1 = "ABCDGH";

string str2 = "AEDFHR";

string lcs = LongestCommonSubsequence(str1, str2);

Console.WriteLine("Longest Common Subsequence: " + lcs);

}

static string LongestCommonSubsequence(string str1, string str2)

{

int m = str1.Length;

int n = str2.Length;

return LCSRecursive(str1, str2, m, n);

}

static string LCSRecursive(string str1, string str2, int m, int n)

{

if (m == 0 || n == 0)

{

return "";

}

else if (str1[m - 1] == str2[n - 1])

{

return LCSRecursive(str1, str2, m - 1, n - 1) + str1[m - 1];

}

else

{

string lcs1 = LCSRecursive(str1, str2, m - 1, n);

string lcs2 = LCSRecursive(str1, str2, m, n - 1);

return (lcs1.Length > lcs2.Length) ? lcs1 : lcs2;

}

}

}