1. **Write a Console Application to calculate the sum of two user input numbers.**

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the first number:");

string input1 = Console.ReadLine();

Console.WriteLine("Enter the second number:");

string input2 = Console.ReadLine();

if (double.TryParse(input1, out double number1) && double.TryParse(input2, out double number2))

{

double sum = number1 + number2;

Console.WriteLine($"The sum of {number1} and {number2} is: {sum}");

}

else

{

Console.WriteLine("Invalid input. Please enter valid numeric values.");

}

Console.ReadLine(); // This will pause the program until you press Enter key

}

}

}

1. **Write a Console Application to calculate sum, subtraction, multiplication and division of two user input numbers.**

using System;

namespace MathOperationsCalculator

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the first number:");

string input1 = Console.ReadLine();

Console.WriteLine("Enter the second number:");

string input2 = Console.ReadLine();

if (double.TryParse(input1, out double number1) && double.TryParse(input2, out double number2))

{

double sum = number1 + number2;

double subtraction = number1 - number2;

double multiplication = number1 \* number2;

// Check for division by zero

double division = 0;

if (number2 != 0)

{

division = number1 / number2;

}

else

{

Console.WriteLine("Error: Division by zero is not allowed.");

}

Console.WriteLine($"Sum: {sum}");

Console.WriteLine($"Subtraction: {subtraction}");

Console.WriteLine($"Multiplication: {multiplication}");

Console.WriteLine($"Division: {division}");

}

else

{

Console.WriteLine("Invalid input. Please enter valid numeric values.");

}

Console.ReadLine(); // This will pause the program until you press Enter key

}

}

}

1. **Write a Console Application to calculate area and circumference of a circle for given radius.**

using System;

namespace CircleCalculator

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the radius of the circle:");

string input = Console.ReadLine();

if (double.TryParse(input, out double radius))

{

double area = CalculateCircleArea(radius);

double circumference = CalculateCircleCircumference(radius);

Console.WriteLine($"Area of the circle: {area}");

Console.WriteLine($"Circumference of the circle: {circumference}");

}

else

{

Console.WriteLine("Invalid input. Please enter a valid numeric value for the radius.");

}

Console.ReadLine(); // This will pause the program until you press Enter key

}

static double CalculateCircleArea(double radius)

{

return Math.PI \* radius \* radius;

}

static double CalculateCircleCircumference(double radius)

{

return 2 \* Math.PI \* radius;

}

}

}

1. **Write a Console Application to check if a given number is even or odd.**

class Program

{

static void Main(string[] args)

{

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

string input = Console.ReadLine();

if (int.TryParse(input, out int number))

{

if (IsEven(number))

{

Console.WriteLine($"{number} is an even number.");

}

else

{

Console.WriteLine($"{number} is an odd number.");

}

}

else

{

Console.WriteLine("Invalid input. Please enter a valid integer.");

}

Console.ReadLine(); // This will pause the program until you press Enter key

}

static bool IsEven(int number)

{

return number % 2 == 0;

}

}

}

1. **Upgrade the above console application which enables 10 user inputs and displays even or odd for each user input**.

class Program

{

static void Main(string[] args)

{

const int NumberOfInputs = 10;

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

{

Console.WriteLine($"Enter number {i}:");

string input = Console.ReadLine();

if (int.TryParse(input, out int number))

{

if (IsEven(number))

{

Console.WriteLine($"{number} is an even number.");

}

else

{

Console.WriteLine($"{number} is an odd number.");

}

}

else

{

Console.WriteLine("Invalid input. Please enter a valid integer.");

i--;

}

}

Console.ReadLine();

}

static bool IsEven(int number)

{

return number % 2 == 0;

}

}

}