Lab 02

Conditionals and Expressions-2

1- Write a program that calculates the sum and product of three numbers

```
Imports System

Module Program

    Sub Main(args As String())
        Console.WriteLine("Enter the first number")
        Dim a As Integer = Integer.Parse(Console.ReadLine())

        Console.WriteLine("Enter the second number")
        Dim b As Integer = Integer.Parse(Console.ReadLine())

        Console.WriteLine("Enter the third number")
        Dim c As Integer = Integer.Parse(Console.ReadLine())

        Dim sum = a + b + c
        Dim product = a * b * c

        Console.WriteLine("The sum of the three numbers is :
{0}", sum)
        Console.WriteLine("The product of the three numbers is "
& product)

    End Sub
End Module
```

2- Write a program that calculates the volume and surface area of a cone (give its radius and height)

```
Imports System

Module Program
    Sub Main(args As String())
        Console.WriteLine("Enter radius")
        Dim r As Double = Double.Parse(Console.ReadLine())

        Console.WriteLine("Enter height")
        Dim h As Double = Double.Parse(Console.ReadLine())

        Dim volume As Double = Math.PI * (r ^ 2) * (h / 3)

        Dim area As Double = Math.PI * r * (r + Math.Sqrt(h ^ 2 +
r ^ 2))

        Console.WriteLine("Volume of cone is {0} and area is
{1}", volume, area)

    End Sub
End Module
```

3- Write a program that finds the real roots of a quadratic equation

```
Imports System

Module Program
    Sub Main(args As String())
        Console.WriteLine("Enter cooefficient of x^2")
        Dim a As Double = Double.Parse(Console.ReadLine())

        Console.WriteLine("Enter the cofficient of x")
        Dim b As Double = Double.Parse(Console.ReadLine())

        Console.WriteLine("Enter the absolute term")
        Dim c As Double = Double.Parse(Console.ReadLine())

        Dim disc = (b ^ 2) - (4 * a * c)

        If disc < 0 Then
            Console.WriteLine("No real roots")
        ElseIf disc = 0 Then
            Dim sol = (-b + Math.Sqrt(disc)) / (2 * a)
            Console.WriteLine("The solution is : {0}", sol)
        Else
            Dim sol1 = (-b + Math.Sqrt(disc)) / (2 * a)
            Dim sol2 = (-b - Math.Sqrt(disc)) / (2 * a)
            Console.WriteLine("The first root is {0} and the
second root is {1} ", sol1, sol2)
        End If

    End Sub
End Module
```

Assignment:

Write a program that takes a 4-digit number from the user, and calculates the sum of its individual digits

Example: 1273 => sum: 1+2+7+3 = 13

Assignment should be sent to: khaled.3ttia@gmail.com