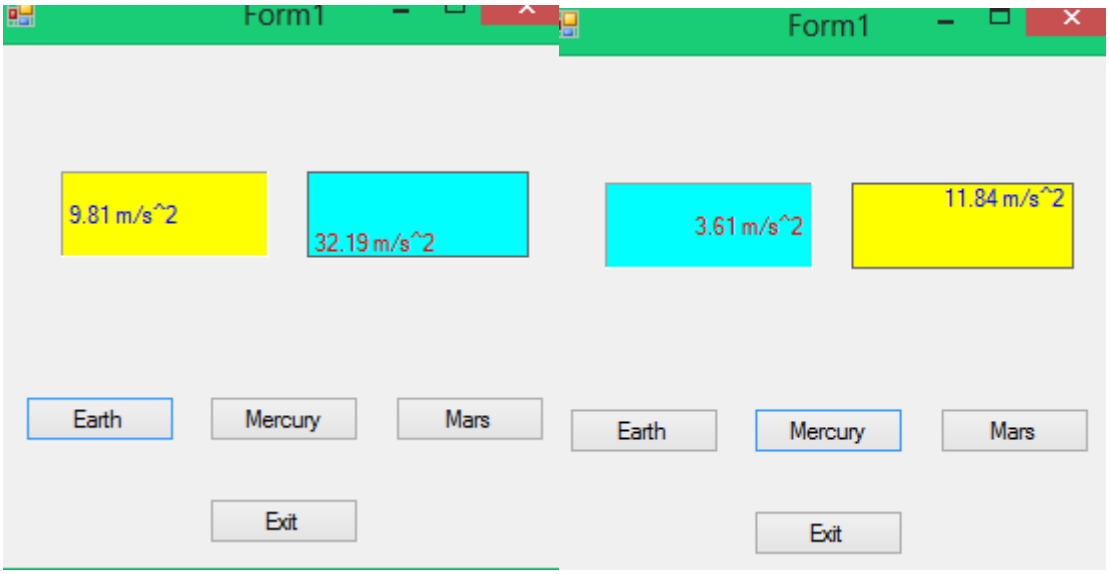
Question 1

```
Public Class Form1

    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load

    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles btnEarth.Click

        lblGravityMeters.Text = 9.81 & " m/s^2"
        lblGravityFeet.Text = 32.19 & " m/s^2"

        lblGravityMeters.TextAlign = ContentAlignment.MiddleLeft
        lblGravityFeet.TextAlign = ContentAlignment.BottomLeft

        lblGravityMeters.ForeColor = Color.Blue
        lblGravityFeet.ForeColor = Color.Red

        lblGravityMeters.BackColor = Color.Yellow
        lblGravityFeet.BackColor = Color.Cyan

    End Sub

    Private Sub Label1_Click(sender As Object, e As EventArgs) Handles
lblGravityMeters.Click

    End Sub


    Private Sub btnMercury_Click(sender As Object, e As EventArgs) Handles
btnMercury.Click

        lblGravityMeters.Text = 3.61 & " m/s^2"
        lblGravityFeet.Text = 11.84 & " m/s^2"

        lblGravityMeters.TextAlign = ContentAlignment.MiddleRight
        lblGravityFeet.TextAlign = ContentAlignment.TopRight

        lblGravityMeters.ForeColor = Color.Red
        lblGravityFeet.ForeColor = Color.Blue

        lblGravityMeters.BackColor = Color.Cyan
        lblGravityFeet.BackColor = Color.Yellow

    End Sub

    Private Sub btnMars_Click(sender As Object, e As EventArgs) Handles btnMars.Click

        lblGravityMeters.Text = 3.75 & " m/s^2"
        lblGravityFeet.Text = 12.3 & " m/s^2"

        lblGravityMeters.TextAlign = ContentAlignment.MiddleCenter
        lblGravityFeet.TextAlign = ContentAlignment.BottomRight
```

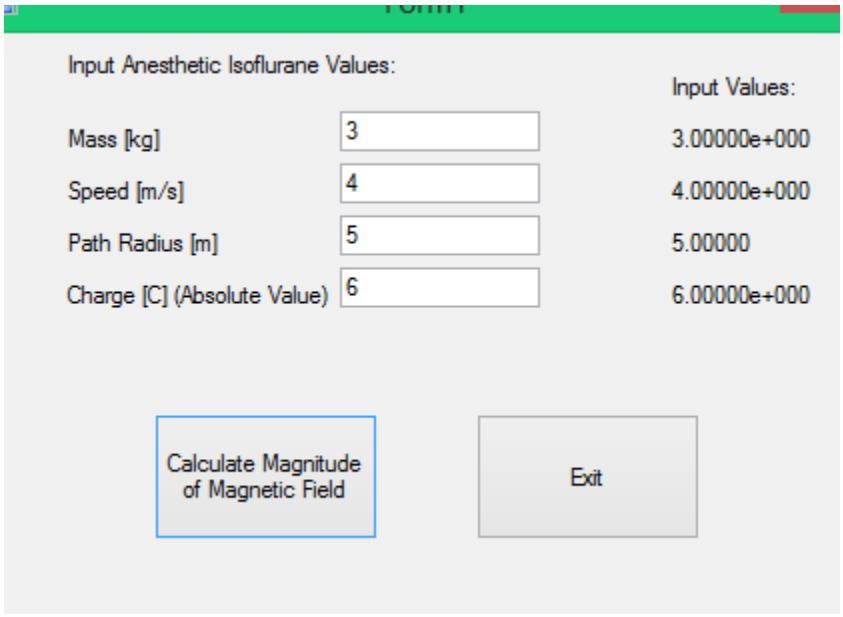
```
        lblGravityMeters.ForeColor = Color.Green
        lblGravityFeet.ForeColor = Color.Yellow

        lblGravityMeters.BackColor = Color.Yellow
        lblGravityFeet.BackColor = Color.Green

    End Sub


    Private Sub Button1_Click_1(sender As Object, e As EventArgs) Handles btnExit.Click
        Me.Close()

    End Sub

End Class
```



Question 2

```
Public Class Form1

    Dim lngMass As Long
    Dim lngSpeed As Long
    Dim lngPathRadius As Long
    Dim lngCharge As Long
    Dim lngCalculate As Long



    Private Sub Label1_Click(sender As Object, e As EventArgs) Handles
lblInputInstructions.Click

    End Sub

    Private Sub Label2_Click(sender As Object, e As EventArgs) Handles lblMass.Click

    End Sub

    Private Sub Label5_Click(sender As Object, e As EventArgs) Handles lblCharge.Click

    End Sub

    Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles
txtInputMass.TextChanged

        lngMass = CLng(txtInputMass.Text)
        lblDisplayMass.Text = lngMass.ToString("e5")


    End Sub

    Private Sub txtInputSpeed_TextChanged(sender As Object, e As EventArgs) Handles
txtInputSpeed.TextChanged
        lngSpeed = CLng(txtInputSpeed.Text)
        lblDisplaySpeed.Text = lngSpeed.ToString("e5")



    End Sub

    Private Sub txtInputRadius_TextChanged(sender As Object, e As EventArgs) Handles
txtInputPathRadius.TextChanged
        lngPathRadius = CLng(txtInputPathRadius.Text)
        lblDisplayPathRadius.Text = lngPathRadius.ToString("n5")



    End Sub

    Private Sub txtInputCharge_TextChanged(sender As Object, e As EventArgs) Handles
txtInputCharge.TextChanged
        lngCharge = CLng(txtInputCharge.Text)
        lblDisplayCharge.Text = lngCharge.ToString("e5")
```

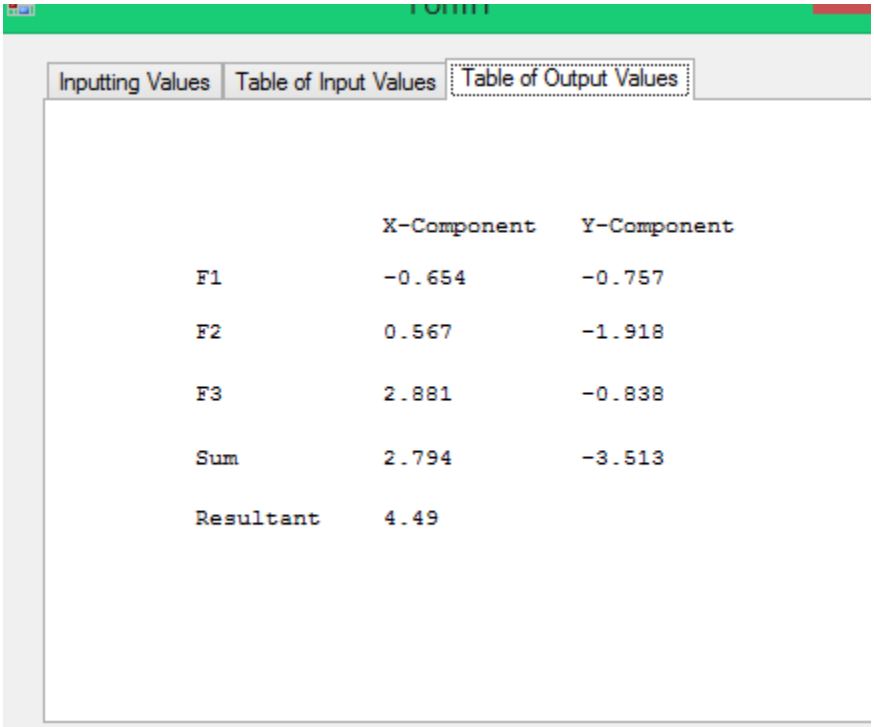
```
    End Sub

    Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles
btnCalculate.Click

        lngCalculate = (lngMass * lngSpeed / lngPathRadius / lngCharge)

        lblResult.Text = "Result = " & lngCalculate.ToString("n3")

    End Sub

    Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles btnExit.Click
        Me.Close()
    End Sub

    Private Sub Label1_Click_1(sender As Object, e As EventArgs) Handles lblResult.Click

    End Sub


    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load

    End Sub


End Class
```

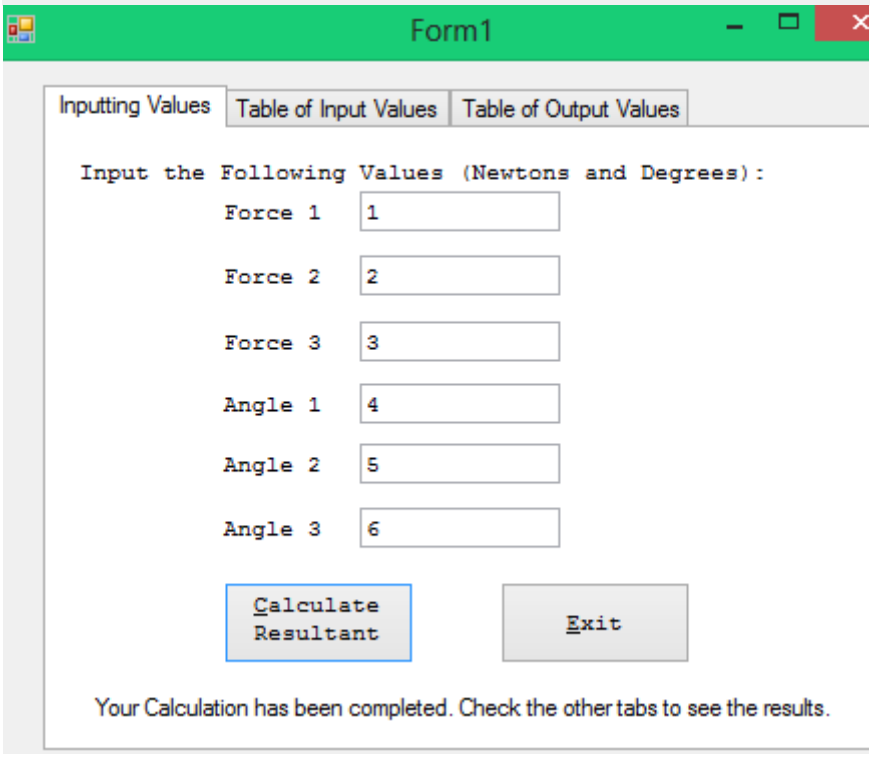


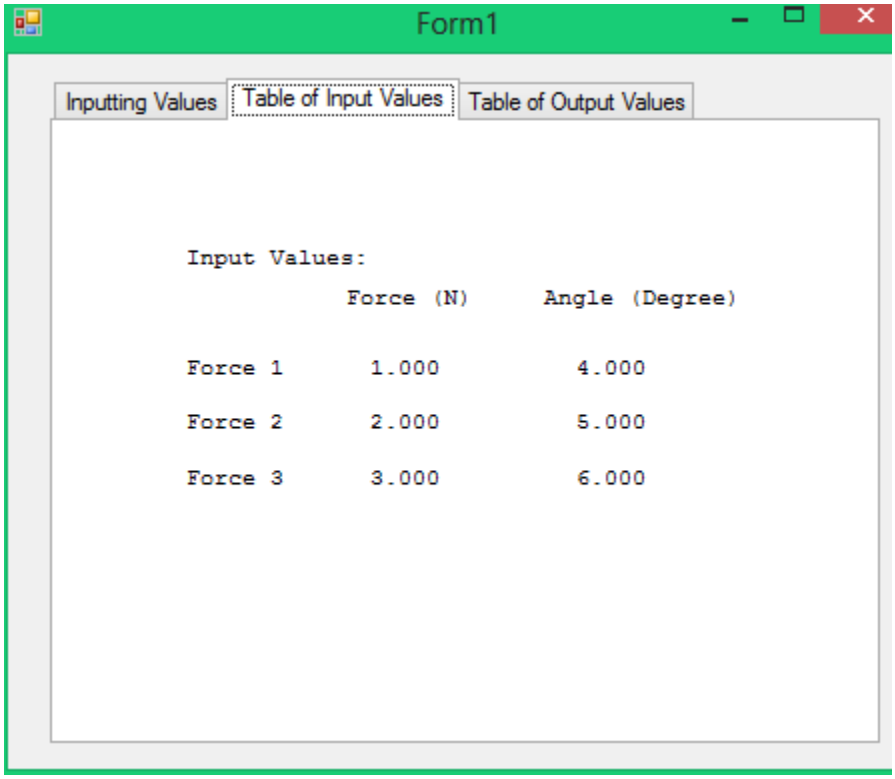
Question 3

```
Public Class Form1

    ' Ilker Hadzhalaran

    Dim dblForce1 As Double
    Dim dblForce2 As Double
    Dim dblForce3 As Double
    Dim dblAngle1 As Double
    Dim dblAngle2 As Double
    Dim dblAngle3 As Double
    Dim dblCalculate As Double
    Dim dblSX As Double
    Dim dblSY As Double



    Private Sub txtInputForce1_TextChanged(sender As Object, e As EventArgs) Handles
txtInputForce1.TextChanged
        dblForce1 = CDbl(txtInputForce1.Text)
        lblForce1ResultSecondTab.Text = dblForce1.ToString("n3")


    End Sub

    Private Sub txtInputForce2_TextChanged(sender As Object, e As EventArgs) Handles
txtInputForce2.TextChanged
        dblForce2 = CDbl(txtInputForce2.Text)
        lblForce2ResultSecondTab.Text = dblForce2.ToString("n3")

    End Sub

    Private Sub txtInputForce3_TextChanged(sender As Object, e As EventArgs) Handles
txtInputForce3.TextChanged
        dblForce3 = CDbl(txtInputForce3.Text)
        lblForce3ResultSecondTab.Text = dblForce3.ToString("n3")
    End Sub

    Private Sub txtInputAngle1_TextChanged(sender As Object, e As EventArgs) Handles
txtInputAngle1.TextChanged
        dblAngle1 = CDbl(txtInputAngle1.Text)
        lblAngle1ResultSecondTab.Text = dblAngle1.ToString("n3")
    End Sub

    Private Sub txtInputAngle2_TextChanged(sender As Object, e As EventArgs) Handles
txtInputAngle2.TextChanged
        dblAngle2 = CDbl(txtInputAngle2.Text)
        lblAngle2ResultSecondTab.Text = dblAngle2.ToString("n3")
    End Sub

    Private Sub txtInputAngle3_TextChanged(sender As Object, e As EventArgs) Handles
txtInputAngle3.TextChanged
```

```
        dblAngle3 = CDbl(txtInputAngle3.Text)
        lblAngle3ResultSecondTab.Text = dblAngle3.ToString("n3")
    End Sub

    Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles
btnCalculate.Click

        dblSX = dblForce1 * Math.Cos(dblAngle1) + dblForce2 * Math.Cos(dblAngle2) +
dblForce3 * Math.Cos(dblAngle3)
        dblSY = dblForce1 * Math.Sin(dblAngle1) + dblForce2 * Math.Sin(dblAngle2) +
dblForce3 * Math.Sin(dblAngle3)

        lblSXThirdTab.Text = dblSX.ToString("n3")
        lblSYThirdTab.Text = dblSY.ToString("n3")

        lblF1XThirdTab.Text = (dblForce1 * Math.Cos(dblAngle1)).ToString("n3")
        lblF2XThirdTab.Text = (dblForce2 * Math.Cos(dblAngle2)).ToString("n3")
        lblF3XThirdTab.Text = (dblForce3 * Math.Cos(dblAngle3)).ToString("n3")

        lblF1YThirdTab.Text = (dblForce1 * Math.Sin(dblAngle1)).ToString("n3")
        lblF2YThirdTab.Text = (dblForce2 * Math.Sin(dblAngle2)).ToString("n3")
        lblF3YThirdTab.Text = (dblForce3 * Math.Sin(dblAngle3)).ToString("n3")




        dblCalculate = Math.Sqrt(Math.Pow(dblSX, 2) + Math.Pow(dblSY, 2))
        lblResultantThirdTab.Text = dblCalculate.ToString("n")

        lblInstructionsAfterCalculation.Text = "Your Calculation has been completed.
Check the other tabs to see the results."


    End Sub

    Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles btnExit.Click
        Me.Close()
    End Sub



End Class
```


Inputting Values
Table of Input Values
Table of Output Values
X-Component
Y-Component
F1
-0.654
-0.757
F2
0.567
-1.918
F3
2.881
-0.838
Sum
2.794
-3.513
Resultant
4.49


Form1
Inputting Values
Table of Input Values
Table of Output Values
Input the Following Values (Newtons and Degrees):
Force 1
1
Force 2
2
Force 3
3
Angle 1
4
Angle 2
5
Angle 3
6
Calculate Resultant
Exit
Your Calculation has been completed. Check the other tabs to see the results.


Form1
Inputting Values
Table of Input Values
Table of Output Values
Input Values:
Force (N)
Angle (Degree)
Force 1
1.000
4.000
Force 2
2.000
5.000
Force 3
3.000
6.000