



TECNOLÓGICO NACIONAL DE MÉXICO CAMPUS REYNOSA

TEMA: UNIDAD 3

DOCENTE: MIRIAM PUENTE JIMENEZ

MATERIA: PROGRAMACIÓN BÁSICA

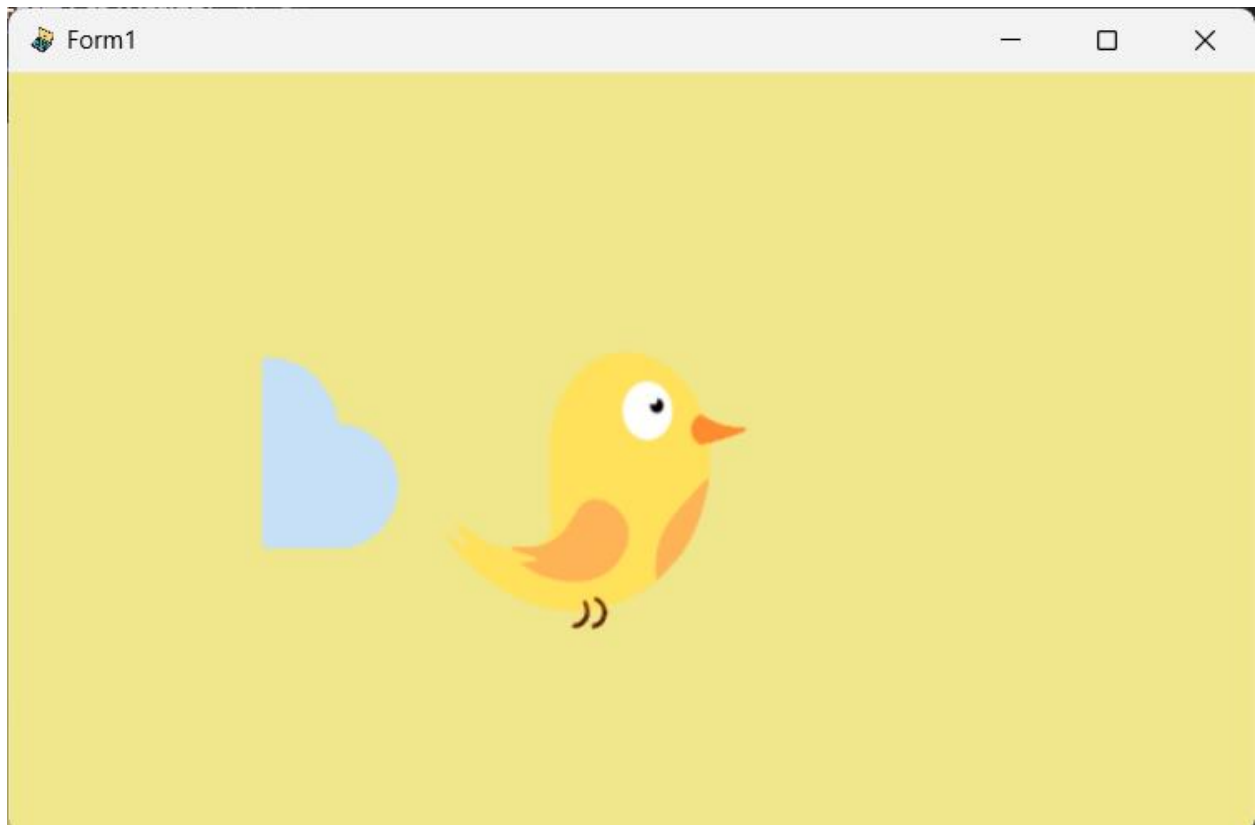
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NUMERO DE CONTROL: 24580111

FECHA DE ENTREGA: 04 DE ABRIL DE 2025

INGENIERIA MECATRÓNICA

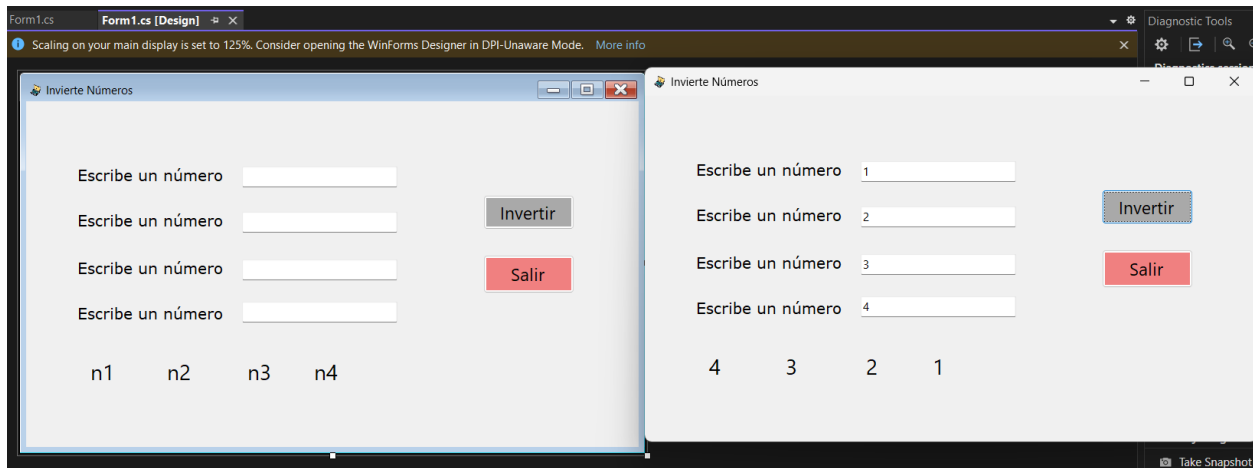
Practica 1 Gif animado



Practica 2 Invierte datos

```
Form1.cs  Form1.cs [Design]
Practica 2 Invierte Datos  Practica_2_Invierte_Datos.Form1  textBox4_TextChanged(object sender, EventArgs e)

3  public partial class Form1 : Form
4  {
5
6      public Form1()
7      {
8          InitializeComponent();
9      }
10
11      1 reference
12      private void Invertir_Click(object sender, EventArgs e)
13      {
14          int a, b, c, d;
15          a = int.Parse(textBox1.Text);
16          b = int.Parse(textBox2.Text);
17          c = int.Parse(textBox3.Text);
18          d = int.Parse(textBox4.Text);
19          label5.Text = d.ToString();
20          label6.Text = c.ToString();
21          label7.Text = b.ToString();
22          label8.Text = a.ToString();
23      }
24
25      1 reference
26      private void button2_Click(object sender, EventArgs e)
27      {
28          Application.Exit();
29      }
30
31      1 reference
32      private void textBox4_TextChanged(object sender, EventArgs e)
33      {
34      }
35  }
```



Practica 3 Suma 2 números

```
Form1.cs  Form1.cs [Design]
Practica 3 Suma 2 Numeros  Practica_3_Suma_2_Numeros.Form1  suma_Click(object sender, EventArgs e)
{
1  namespace Practica_3_Suma_2_Numeros
2  {
3      3 references
4      public partial class Form1 : Form
5      {
6          1 reference
7          public Form1()
8          {
9              InitializeComponent();
10         }
11
12         1 reference
13         private void suma_Click(object sender, EventArgs e)
14         {
15             int num1 = Int32.Parse(textBox1.Text);
16             int num2 = Int32.Parse(textBox2.Text);
17             int sum = num1 + num2;
18             label3.Text = "Sum = " + sum;
19         }
20     }
21 }
```

Form1.cs Form1.cs [Design] Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

The image displays two side-by-side screenshots of a Windows Forms application window titled 'Form1'. The left screenshot shows the initial state of the application: two text boxes labeled 'Primer Número' and 'Segundo Número' are empty, and a label 'Sum =' is followed by an empty space. A button labeled 'Suma' is at the bottom. The right screenshot shows the application after the 'Suma' button has been clicked. The 'Primer Número' text box now contains the value '1', the 'Segundo Número' text box contains the value '3', and the label now displays 'Sum = 4'. The 'Suma' button remains at the bottom.

Práctica 4 Cilindro

```
Form1.cs [Design]
Practica 4 Cilindro
Practica_4_Cilindro.Form1
button2_Click(object sender, EventArgs e)

1 reference
private void button1_Click(object sender, EventArgs e)
{
    double Radius, Height;
    double BaseArea, LateralArea, TotalArea;
    double Volume;
    Radius = double.Parse(textBox1.Text);
    Height = double.Parse(textBox2.Text);

    BaseArea = Radius * Radius * Math.PI;
    LateralArea = 2 * Math.PI * Radius * Height;
    TotalArea = 2 * Math.PI * Radius * (Height + Radius);
    Volume = Math.PI * Radius * Radius * Height;

    textBox3.Text = BaseArea.ToString("0.##");
    textBox4.Text = LateralArea.ToString("0.##");
    textBox6.Text = TotalArea.ToString("0.##");
    textBox5.Text = Volume.ToString("0.##");
}

1 reference
private void label6_Click(object sender, EventArgs e)
{
}

1 reference
private void button3_Click(object sender, EventArgs e)
{
    Application.Exit();
}

1 reference
```

Form1

Form1 [Design]

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Form1

Introduce las Dimensiones del Cilindro

Radio


Altura

Base Área

Lateral Área

Total Area

Volumen



Form1

Introduce las Dimensiones del Cilindro

Radio


Altura

Base Área

Lateral Área

Total Area

Volumen



Práctica 5 Área triángulo

```
1 namespace Practica_5_Area_Triangulo
2 {
3     public partial class Form1 : Form
4     {
5         public Form1()
6         {
7             InitializeComponent();
8         }
9
10        private void label2_Click(object sender, EventArgs e)
11        {
12        }
13
14
15        private void button1_Click(object sender, EventArgs e)
16        {
17            float valor1 = float.Parse(textBox1.Text);
18            float valor2 = float.Parse(textBox2.Text);
19            float valor3 = valor1 * valor2 / 2;
20            textBox3.Text = valor3.ToString();
21        }
22    }
23 }
24
```

Form1.cs Form1.cs [Design]

Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

Form1

Area del Triangulo

Base

Altura

Area

Calcular

Form1

Area del Triangulo

Base

Altura

Area

Calcular

Práctica 6 Conversión Temperatura

```
Form1.cs  Form1.cs [Design]
Conversion Temperatura

3  public partial class Form1 : Form
4  {
5      public Form1()
6      {
7          InitializeComponent();
8      }
9
10     private void button1_Click(object sender, EventArgs e)
11     {
12         double v1, farh1;
13         v1 = double.Parse(textBox1.Text);
14         farh1 = v1 * (9.0 / 5.0) + 32;
15         textBox2.Text = (farh1.ToString());
16         label6.Text = "Fahrenheit";
17     }
18
19     private void button2_Click(object sender, EventArgs e)
20     {
21         double v1, cent1;
22         v1 = double.Parse(textBox1.Text);
23         cent1 = (v1 - 32) * (5.0 / 9.0);
24         textBox2.Text = (cent1.ToString());
25         label6.Text = "Celsius";
26     }
27
28     private void button3_Click(object sender, EventArgs e)
29     {
30         textBox2.Text = "";
31         label6.Text = "";
32     }
```

Form1.cs Form1.cs [Design] X

Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

Form1

Datos

Ingresa Valor

Opciones de conversion

FARENHEIT CENTIGRADOS

BORRAR

Resultado en Grados

Equivalente en grados

Form1

Datos

Ingresa Valor

Opciones de conversion

FARENHEIT CENTIGRADOS

BORRAR

Resultado en Grados

Equivalente en grados

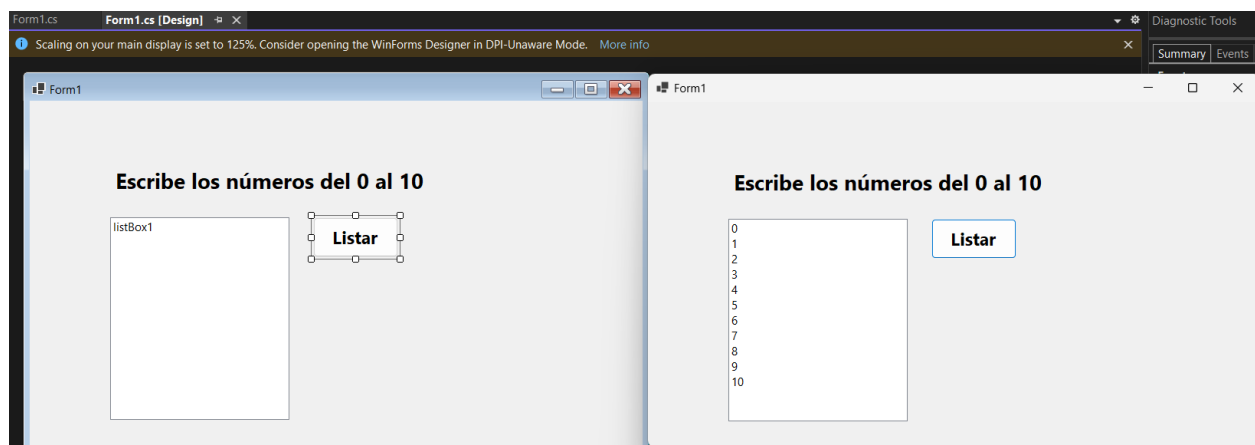
Fahrenheit

For, while, do 1

```
Form1.cs*  Form1.cs [Design]*
FWD 1
namespace FWD_1
{
    3 references
    public partial class Form1 : Form
    {
        1 reference
        public Form1()
        {
            InitializeComponent();
        }

        1 reference
        private void button1_ClientSizeChanged(object sender, EventArgs e)
        {
        }

        1 reference
        private void button1_Click(object sender, EventArgs e)
        {
            int x = 0;
            do
            {
                listBox1.Items.Add(x);
                x++;
            }
            while (x <= 10);
        }
    }
}
```



For, while, do 2

```
Form1.cs  Form1.cs [Design]  Form1.Designer.cs  Form1.resx
Practica 2, F, W, D
Practica_2_F_W_D.Form1
textBox2
94
95
96
97
98
1 reference
99 private void button1_Click(object sender, EventArgs e)
100 {
101     int n, count = 0, limite;
102     n = int.Parse(textBox1.Text);
103     limite = int.Parse(textBox2.Text);
104     do
105     {
106         listBox1.Items.Add(n + " * " + count + "=" + n * count);
107         count++;
108     }
109     while (count <= limite);
110 }
111
112
113
114
```

Form1.cs Form1.cs [Design] Form1.Designer.cs Form1.resx

Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

Form1

Tabla de multiplicación

Introduce el valor de la tabla de multiplicar

listBox1

Límite máximo para la tabla de multiplicación

Calcular

Form1

Tabla de multiplicación

Introduce el valor de la tabla de multiplicar

10 * 0 = 0
10 * 1 = 10
10 * 2 = 20
10 * 3 = 30
10 * 4 = 40
10 * 5 = 50

Límite máximo para la tabla de multiplicación

Calcular

For, while, do 3

```
Form1.cs  Form1.cs [Design]
FWD 3    FWD_3.Form1    Total
10
11 namespace FWD_3
12 {
13     3 references
14     public partial class Form1: Form
15     {
16         float f_num, Total = 0;
17         1 reference
18         public Form1()
19         {
20             InitializeComponent();
21
22         1 reference
23         private void button1_Click(object sender, EventArgs e)
24         {
25             listBox1.Items.Add(textBox1.Text);
26             f_num = float.Parse(textBox1.Text);
27             Total += f_num;
28             textBox1.Text = "";
29             textBox1.Focus();
30
31         1 reference
32         private void button2_Click(object sender, EventArgs e)
33         {
34             textBox2.Text = Total.ToString();
35         }
36     }
37 }
```

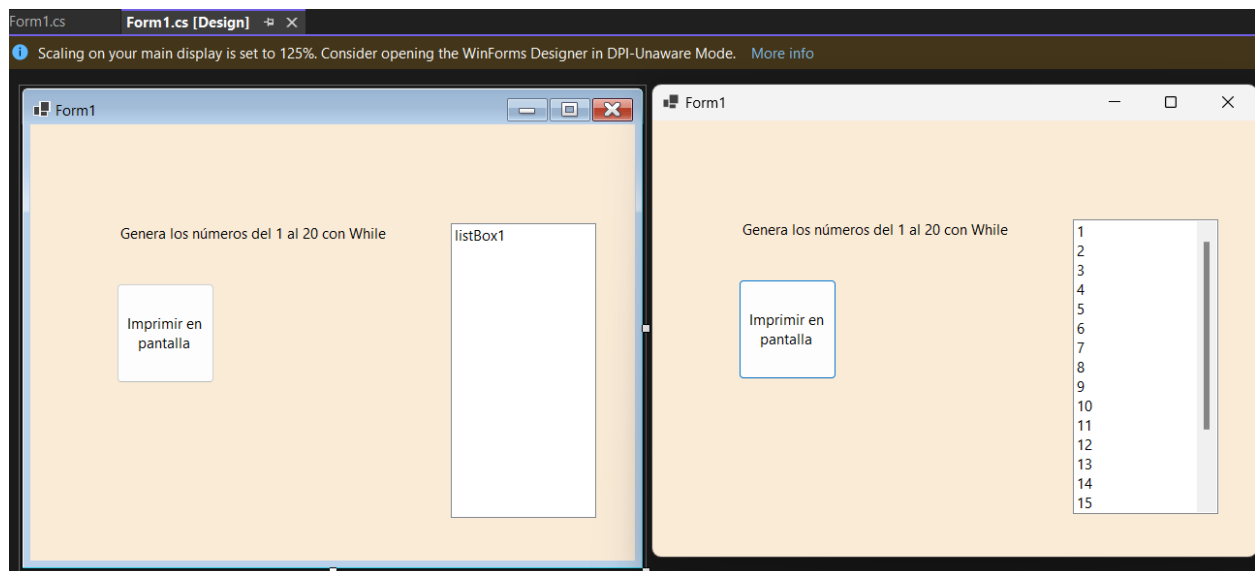
The image shows two side-by-side screenshots of a Windows Forms application titled 'Form1'. Both windows have a title bar with standard minimize, maximize, and close buttons.

The left window shows the initial state of the application. It has a light gray background with the text 'Este programa suma los numeros capturados' at the top. Below this, there is a label 'Introduce un Numero:' followed by a text box. To the right of the text box is a label 'listBox1' above an empty list box. Below the text box is a button labeled 'Añadir'. To the left of the text box is a button labeled 'Sumar Numeros'. Below the text box is a label 'La suma de todos los numeros son:' followed by another empty text box.

The right window shows the application after several interactions. The text box now contains the number '15'. The 'listBox1' now contains a list of numbers: 1, 2, 3, 4, and 5. The 'Sumar Numer' button (note the typo in the image) is highlighted with a blue border. The 'Añadir' button is still visible. The 'La suma de todos los numeros son:' label is now followed by the text '15'.

For, while, do 4

```
Form1.cs  Form1.cs [Design]
FWD 4      FWD_4.Form1      listBox1
1 namespace FWD_4
2 {
3     public partial class Form1 : Form
4     {
5         public Form1()
6         {
7             InitializeComponent();
8         }
9
10        private void button1_Click(object sender, EventArgs e)
11        {
12            int a = 1;
13            while (a <= 20)
14            {
15                listBox1.Items.Add(a);
16                a++;
17            }
18        }
19    }
20 }
21
```

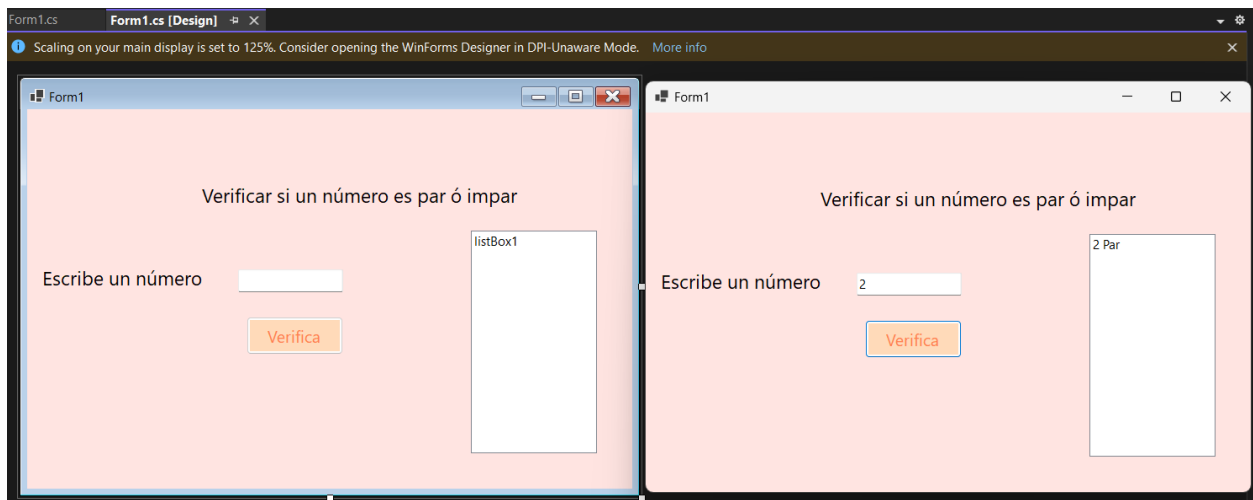


For, while, do 5

```
Form1.cs  Form1.cs [Design]
FWD 5
namespace FWD_5
{
    3 references
    public partial class Form1 : Form
    {
        1 reference
        public Form1()
        {
            InitializeComponent();
        }

        1 reference
        private void label2_Click(object sender, EventArgs e)
        {
        }

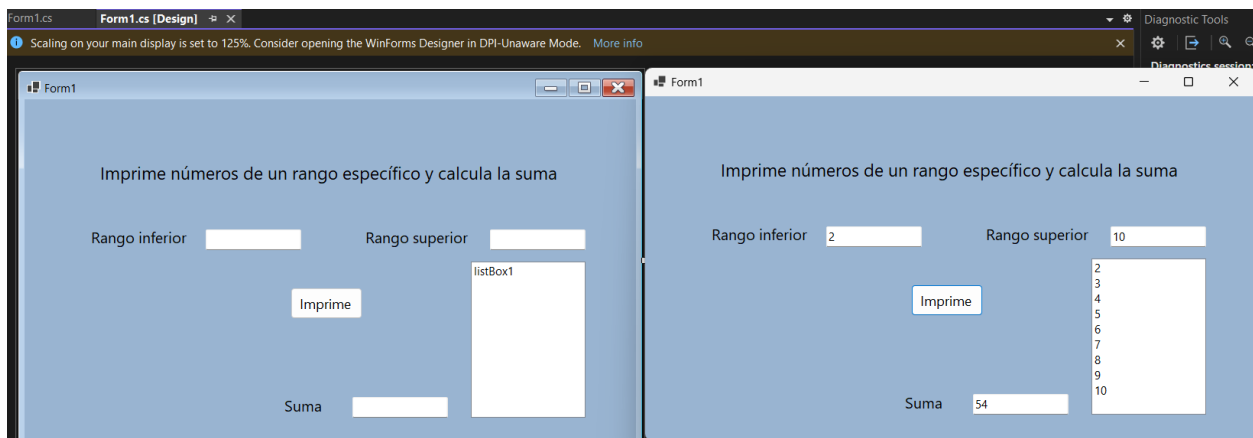
        1 reference
        private void button1_Click(object sender, EventArgs e)
        {
            int numero = int.Parse(textBox1.Text);
            if (numero % 2 == 0)
            {
                listBox1.Items.Add(numero + " Par");
            }
            else
            {
                listBox1.Items.Add(numero + " Impar");
            }
        }
    }
}
```



For, while, do 6

```
Form1.cs  Form1.cs [Design]
FWS 6
namespace FWS_6
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

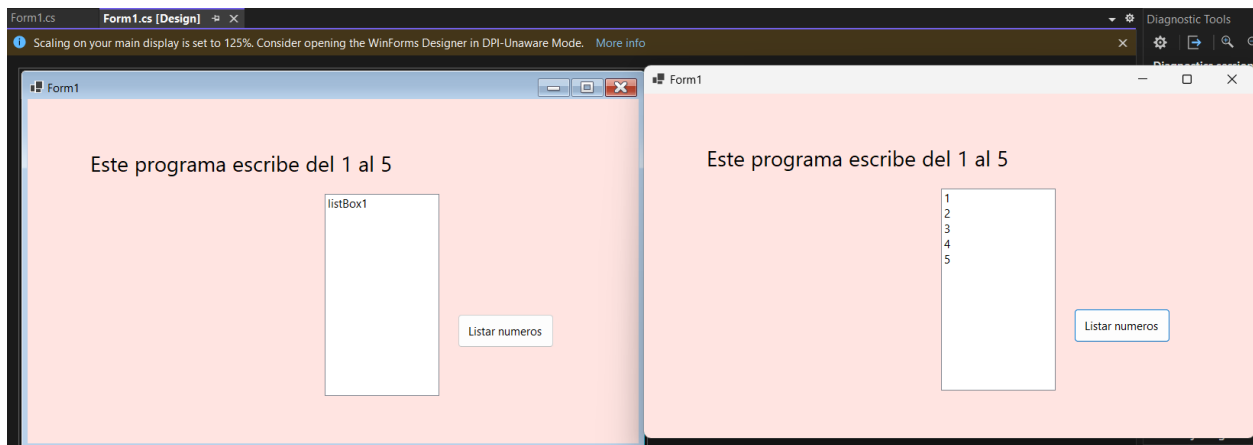
        private void button1_Click(object sender, EventArgs e)
        {
            int rangoinferior, rangosuperior, suma = 0;
            rangoinferior = int.Parse(textBox1.Text);
            rangosuperior = int.Parse(textBox2.Text);
            listBox1.Items.Clear();
            for (int i = rangoinferior; i <= rangosuperior; i++)
            {
                listBox1.Items.Add(i);
                suma = suma + i;
            }
            textBox3.Text = suma.ToString();
        }
    }
}
```



For, while, do 8

```
Form1.cs  Form1.cs [Design]
FWD 8
FWD_8.Form1
Form1()

1 namespace FWD_8
2 {
3     public partial class Form1 : Form
4     {
5         public Form1()
6         {
7             InitializeComponent();
8         }
9
10        private void button1_Click(object sender, EventArgs e)
11        {
12            for (int i = 1; i <= 5; i++) {
13                listBox1.Items.Add(i);
14            }
15        }
16    }
17 }
18
```

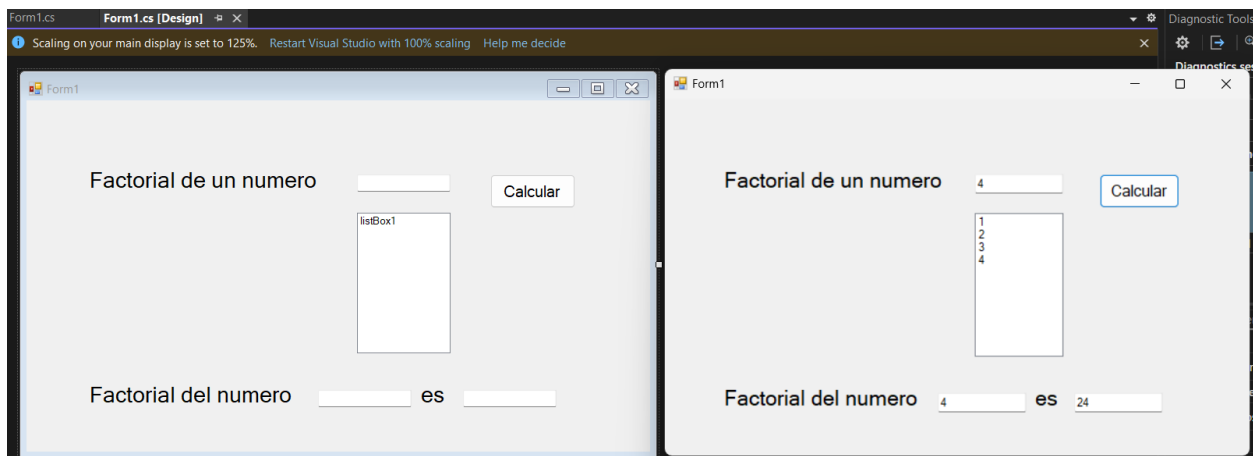


For, while, do 9

```
Form1.cs  Form1.cs [Design]
FWD 9
using System.Windows.Forms;

namespace FWD_9
{
    3 references
    public partial class Form1: Form
    {
        1 reference
        public Form1()
        {
            InitializeComponent();
        }

        1 reference
        private void button1_Click(object sender, EventArgs e)
        {
            int numero = int.Parse(textBox1.Text);
            int factorial = 1;
            for (int i = 1; i <= numero; i++)
            {
                listBox1.Items.Add(i);
                factorial *= i;
            }
            textBox2.Text = numero.ToString();
            textBox3.Text = factorial.ToString();
        }
    }
}
```



For, while, do 10

```
Form1.cs  Form1.cs [Design]
FWD 10
namespace FWD_10
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            int i, cua, cub, zeta;
            for (i = 1; i <= 50; i++)
            {
                cua = i * i;
                cub = i * i * i;
                zeta = cua + cub;
                listBox1.Items.Add(i);
                listBox2.Items.Add(cua);
                listBox3.Items.Add(cub);
                listBox4.Items.Add(zeta);
            }
        }

        private void label4_Click(object sender, EventArgs e)
        {
        }
    }
}
```

Form1.cs Form1.cs [Design] Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. More info

Form1

$Z = X^2 + X^3$

X	X ²	X ³	Z
listBox1	listBox2	listBox3	listBox4

Calculat

Form1

$Z = X^2 + X^3$

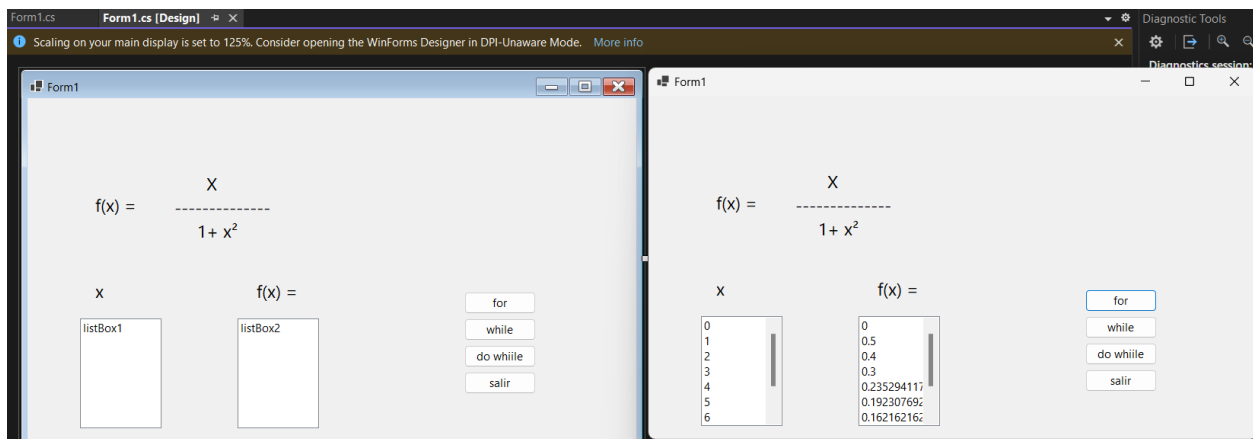
X	X ²	X ³	Z
1	1	1	2
2	4	8	12
3	9	27	36
4	16	64	80
5	25	125	150
6	36	216	252
7	49	343	392
8	64	512	576
9	81	729	810
10	100	1000	1100
11	121	1331	1452

Calculat

For, while, do 11

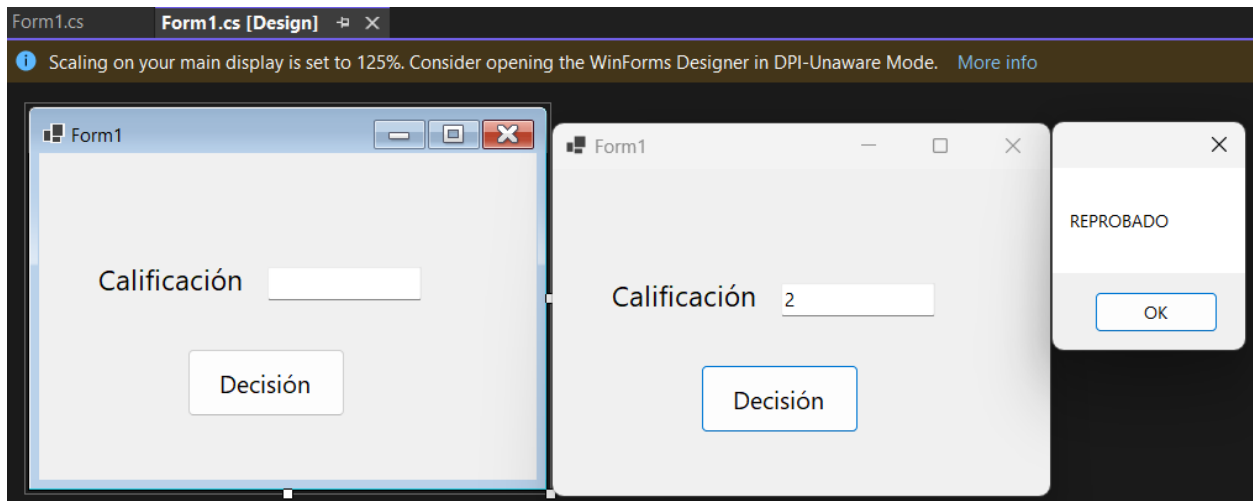
```
Form1.cs [Design]
FWD_11
FWD_11.Form1
button3_Click(object sender, EventArgs e)

12 private void button1_Click(object sender, EventArgs e)
13 {
14     for (int x = 0; x < 10; x++)
15     {
16         listBox1.Items.Add(x);
17         double fx = x / (1.0 + x * x);
18         listBox2.Items.Add(fx);
19     }
20 }
21
22 1 reference
23 private void button2_Click(object sender, EventArgs e)
24 {
25     int x1 = 1;
26     while (x1 <= 10)
27     {
28         listBox1.Items.Add(x1);
29         double fx = x1 / (1.0 + x1 * x1);
30         listBox2.Items.Add(fx);
31         x1++;
32     }
33 }
34 1 reference
35 private void button3_Click(object sender, EventArgs e)
36 {
37     int x2 = 1;
38     do
39     {
40         listBox1.Items.Add(x2);
41         double fx = x2 / (1.0 + x2 * x2);
42         listBox2.Items.Add(fx);
43         x2++;
44     } while (x2 <= 10);
45 }
```



Estructura selectiva 12

```
Form1.cs Form1.cs [Design]
ES 12 ES_12.Form1 textBox1
1 namespace ES_12
2 {
3     3 references
4     public partial class Form1 : Form
5     {
6         1 reference
7         public Form1()
8         {
9             InitializeComponent();
10
11         1 reference
12         private void button1_Click(object sender, EventArgs e)
13         {
14             double cal;
15             cal = double.Parse(textBox1.Text);
16             if (cal < 3.0) MessageBox.Show("REPROBADO");
17         }
18     }
19 }
```



Estructura selectiva 13

```
Form1.cs Form1.cs [Design]
ES_13 ES_13 Form1 textBox2
1 namespace ES_13
2 {
3     3 references
4     public partial class Form1 : Form
5     {
6         1 reference
7         public Form1()
8         {
9             InitializeComponent();
10        }
11
12        1 reference
13        private void button1_Click(object sender, EventArgs e)
14        {
15            double sueldo, aum, nsue;
16            sueldo = double.Parse(textBox1.Text);
17            if (sueldo < 400000.00)
18            {
19                aum = sueldo * 0.15;
20                nsue = sueldo + aum;
21                textBox2.Text = nsue.ToString();
22            }
23        }
24
25        1 reference
26        private void button2_Click(object sender, EventArgs e)
27        {
28            textBox2.Clear();
29        }
30    }
31 }
```

Form1.cs Form1.cs [Design] Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

Form1

Dado como dato el sueldo de un trabajador, el programa aplica un aumento del 15% si el sueldo es inferior a 400000

Ingresar sueldo

Decisión

Nuevo sueldo

Form1

Dado como dato el sueldo de un trabajador, el programa aplica un aumento del 15% si el sueldo es inferior a 400000

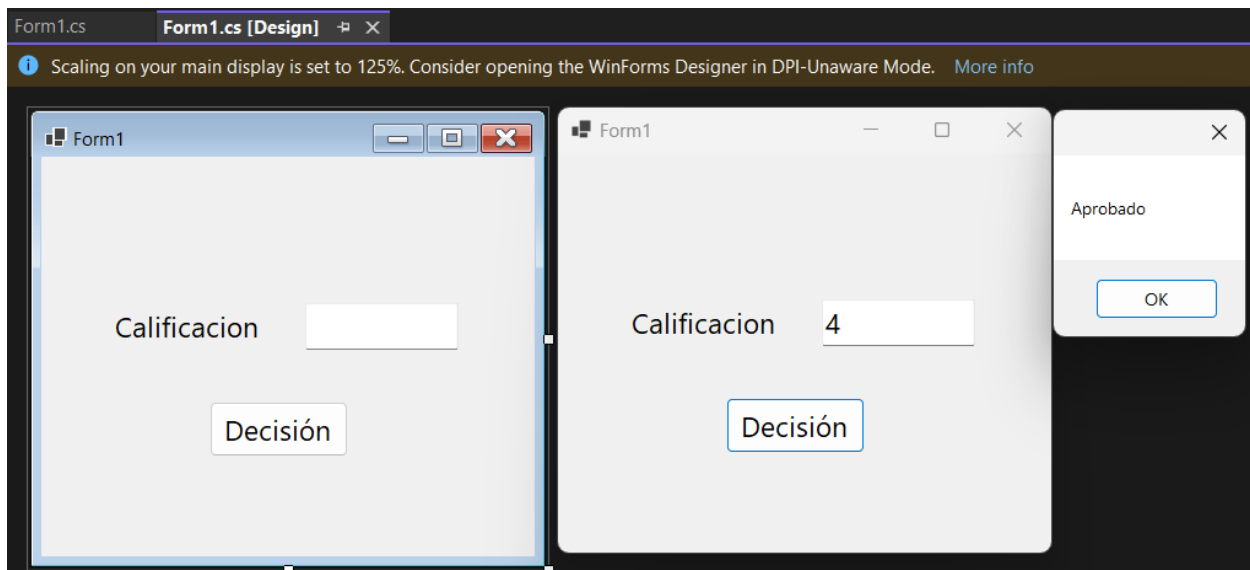
Ingresar sueldo

Decisión

Nuevo sueldo

Estructura selectiva 14

```
Form1.cs Form1.cs [Design]
ES 14 ES_14.Form1 button1_Click(object sender, EventArgs e)
1 namespace ES_14
2 {
3     public partial class Form1 : Form
4     {
5         public Form1()
6         {
7             InitializeComponent();
8         }
9
10        1 reference
11        private void button1_Click(object sender, EventArgs e)
12        {
13            double cal;
14            cal = double.Parse(textBox1.Text);
15            if (cal < 3.0) MessageBox.Show("Reprobado"); else MessageBox.Show("Aprobado");
16        }
17    }
}
```



Estructura selectiva 15

```
Form1.cs Form1.cs [Design]
ES_15 ES_15 ES_15.Form1 textBox2
1 namespace ES_15
2 {
3     3 references
4     public partial class Form1 : Form
5     {
6         1 reference
7         public Form1()
8         {
9             InitializeComponent();
10
11         1 reference
12         private void Form1_Load(object sender, EventArgs e)
13         {
14
15         1 reference
16         private void button1_Click(object sender, EventArgs e)
17         {
18             double sueldo, nsue;
19             sueldo = double.Parse(textBox1.Text);
20             if (sueldo < 40000.00) nsue = sueldo * 1.15;
21             else nsue = sueldo * 1.08;
22             textBox2.Text = nsue.ToString();
23
24         1 reference
25         private void button2_Click(object sender, EventArgs e)
26         {
27             textBox1.Clear();
28             textBox2.Clear();
29
30     }
```

Form1.cs Form1.cs [Design] Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. More info

Form1

Dado como dato el sueldo de un trabajador, el programa aplica un aumento del 15% si el sueldo es inferior a 40000

Ingresar Sueldo

Calcular

Nuevo Sueldo

Form1

Dado como dato el sueldo de un trabajador, el programa aplica un aumento del 15% si el sueldo es inferior a 40000

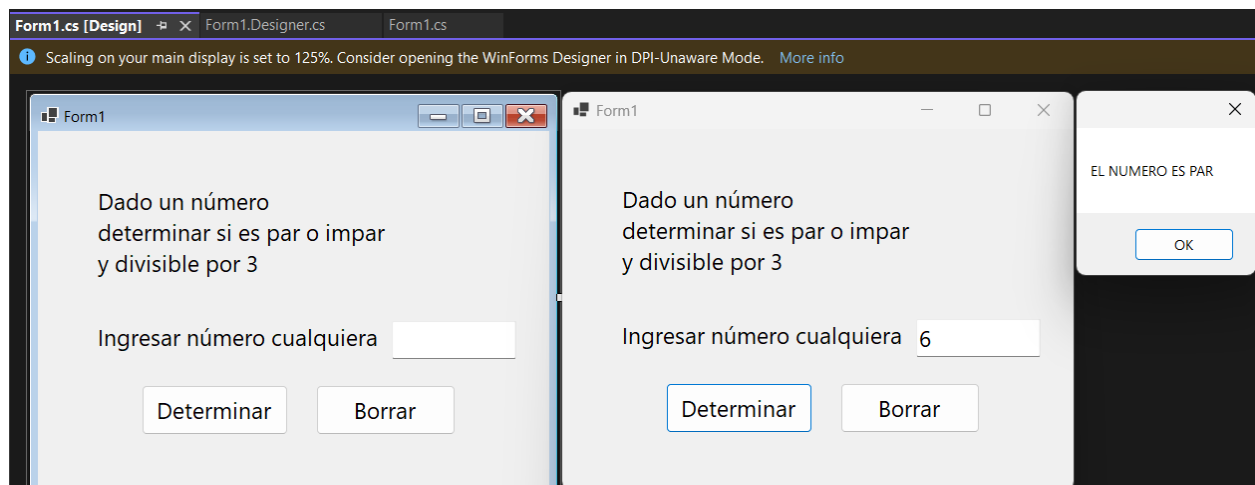
Ingresar Sueldo

Calcular

Nuevo Sueldo

Estructura selectiva 16

```
Form1.cs [Design] | Form1.Designer.cs | Form1.cs | ES_16 | ES_16.Form1 | textBox1
1 namespace ES_16
2 {
3     3 references
4     public partial class Form1 : Form
5     {
6         1 reference
7         public Form1()
8         {
9             InitializeComponent();
10        }
11
12        1 reference
13        private void button1_Click(object sender, EventArgs e)
14        {
15            int num;
16            num = int.Parse(textBox1.Text);
17            if (num % 2 == 0) MessageBox.Show("EL NUMERO ES PAR");
18            else if (num % 3 == 0) MessageBox.Show("EL NUMERO ES IMPAR Y DIVISIBLE POR 3");
19            else MessageBox.Show("EL NUMERO ES IMPAR Y NO ES DIVISIBLE POR 3");
20        }
21
22        1 reference
23        private void button2_Click(object sender, EventArgs e)
24        {
25            textBox1.Clear();
26        }
27    }
28 }
```



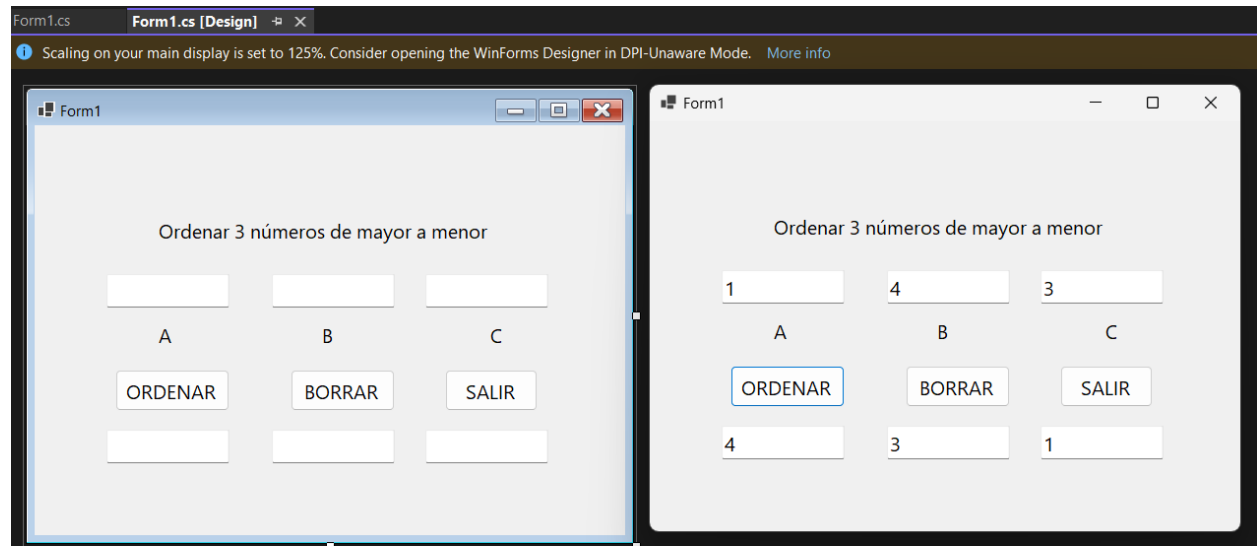
Estructura selectiva 17

```
Form1.cs [Design]
ES 17
1 reference
private void button1_Click(object sender, EventArgs e)
{
    int A, B, C;
    A = int.Parse(textBox1.Text);
    B = int.Parse(textBox2.Text);
    C = int.Parse(textBox3.Text);
    if (A > B)
        if (B > C)
            if (B > C)
            {
                textBox4.Text = A.ToString();
                textBox5.Text = B.ToString();
                textBox6.Text = C.ToString();
            }
            else
            {
                textBox4.Text = A.ToString();
                textBox5.Text = C.ToString();
                textBox6.Text = B.ToString();
            }
        else
        {
            textBox4.Text = C.ToString();
            textBox5.Text = A.ToString();
            textBox6.Text = B.ToString();
        }
    else
        if (B > C)
            if (A > C)
            {
                textBox4.Text = B.ToString();
                textBox5.Text = A.ToString();
                textBox6.Text = C.ToString();
            }
}
```

```
Form1.cs [Design]
ES 17
1 reference
private void button3_Click(object sender, EventArgs e)
{
    textBox4.Text = B.ToString();
    textBox5.Text = A.ToString();
    textBox6.Text = C.ToString();
}
else
{
    textBox4.Text = B.ToString();
    textBox5.Text = C.ToString();
    textBox6.Text = A.ToString();
}
else
{
    textBox4.Text = C.ToString();
    textBox5.Text = B.ToString();
    textBox6.Text = A.ToString();
}
}

1 reference
private void button2_Click(object sender, EventArgs e)
{
    textBox1.Clear();
    textBox2.Clear();
    textBox3.Clear();
    textBox4.Clear();
    textBox5.Clear();
    textBox6.Clear();
}

1 reference
private void button3_Click(object sender, EventArgs e)
{
    Application.Exit();
}
```



Estructura selectiva 18

```
Form1.cs x Form1.cs [Design]
ES 18
8      }
9
10     1 reference
11     private void button1_Click(object sender, EventArgs e)
12     {
13         double lado1, lado2, lado3;
14         lado1 = double.Parse(textBox1.Text);
15         lado2 = double.Parse(textBox2.Text);
16         lado3 = double.Parse(textBox3.Text);
17         if ((lado1 == lado2) && (lado2 == lado3))
18             textBox4.Text = "Equilatero";
19         else
20             if ((lado1 == lado2) || (lado1 == lado3) || (lado2 == lado3))
21                 textBox4.Text = "Isosceles";
22             else textBox4.Text = "Escaleno";
23     }
24
25     1 reference
26     private void button2_Click(object sender, EventArgs e)
27     {
28         textBox1.Clear();
29         textBox2.Clear();
30         textBox3.Clear();
31         textBox4.Clear();
32     }
33
34     1 reference
35     private void button3_Click(object sender, EventArgs e)
36     {
37         Application.Exit();
38     }
39 }
```

Form1.cs Form1.cs [Design] x

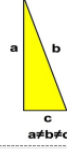

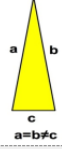
Scaling on your main display is set to 125%. Consider opening the WinForms Designer in DPI-Unaware Mode. [More info](#)

Form1

Isósceles

Equilátero

Escaleno



Longitud lado A

Longitud lado B

Longitud lado C

Decision

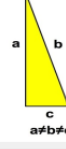


Tipo Triangulo

Form1

Isósceles

Equilátero

Escaleno



Longitud lado A

Longitud lado B

Longitud lado C

Tipo Triangulo