Калькулятор

```
using System;

using System.Collections.Generic;
using System.ComponentModel;
using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;
using System.Windows.Forms;
using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Практика
{
    public partial class Calculator : Form
    {
        double a;
        bool aok = false;
        double b;
        bool bok = false;
        public Calculator()
        {
            InitializeComponent();
            comboBox.SelectedIndex = 0;
        }

        private void calc()
        {
            if (aok && bok)
            {
                int op = comboBox.SelectedIndex;
                switch (op)
                {
                    case 0:
                        answer.Text = (a + b).ToString();
                        break;
                    case 1:
                        answer.Text = (a - b).ToString();
                        break;
                    case 2:
```

```
                    answer.Text = (a * b).ToString();
                    break;
                case 3:
                    answer.Text = (a / b).ToString();
                    break;
                case 4:
                    answer.Text = (Math.Pow(a, b)).ToString();
                    break;
                case 5:
                    answer.Text = (a % b).ToString();
                    break;
                case 6:
                    answer.Text = (Math.Floor(a / b)).ToString();
                    break;
                case 7:
                    answer.Text = (Math.Log(a, b)).ToString();
                    break;
            }
        }
        else
        {
            answer.Text = "???";
        }
    }

    private void comboBox_SelectedIndexChanged(object sender,
EventArgs e)
    {
        calc();
    }

    private void upd1num()
    {
        try
        {
            a = Double.Parse(firstNumber.Text.ToString());
            aok = true;
        }
        catch
        {
            aok = false;
        }
        calc();
    }
```

```
private void upd2num()
{
   try
   {
      b = Double.Parse(secondNumber.Text.ToString());
      bok = true;
   }
   catch
   {
      bok = false;
   }
   calc();
}

private void firstNumber_Leave(object sender, EventArgs e)
{
   upd1num();
}

private void secondNumber_Leave(object sender, EventArgs e)
{
   upd2num();
}

private void firstNumber_KeyDown(object sender, KeyEventArgs e)
{
   if (e.KeyCode == Keys.Enter) secondNumber.Focus();
}

private void secondNumber_KeyDown(object sender, KeyEventArgs e)
{
   if (e.KeyCode == Keys.Enter) answer.Focus();
}

private void firstNumber_TextChanged(object sender, EventArgs e)
{
   upd1num();
}

private void secondNumber_TextChanged(object sender, EventArgs e)
{
   upd2num();
}

private void button1_Click(object sender, EventArgs e)
```

```
        {
            Form1 form1 = new Form1();
            form1.Show();
            this.Hide();
        }

        private void InitializeComponent()
        {
            this.SuspendLayout();
            //
            // Calculator
            //
            this.ClientSize = new System.Drawing.Size(284, 261);
            this.Name = "Calculator";
            this.Load += new System.EventHandler(this.Calculator_Load);
            this.ResumeLayout(false);

        }

        private void Calculator_Load(object sender, EventArgs e)
        {

        }
    }
}
```

РНГ

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using static System.Windows.Forms.VisualStyles.VisualStyleElement;


namespace Практика
```

```
{

    public partial class RNG : Form
    {
        public RNG()
        {
            InitializeComponent();
            comboBox1.SelectedIndex = 0;
        }

        private void button1_Click(object sender, EventArgs e)
        {
            try
            {
                double a = Double.Parse(textBox1.Text.ToString());
                double b = Double.Parse(textBox2.Text.ToString());
                Random r = new Random();
                textBox3.Text = (Math.Floor((a + r.NextDouble() * (b - a)) *
Math.Pow(10,comboBox1.SelectedIndex)) / Math.Pow(10,
comboBox1.SelectedIndex)).ToString();

            }
            catch
            {
                textBox3.Text = "???";
            }
        }

        private void button2_Click(object sender, EventArgs e)
        {
            Form1 form1 = new Form1();
            form1.Show();
            this.Hide();
        }

    private void InitializeComponent()
    {
        this.SuspendLayout();
        this.ClientSize = new System.Drawing.Size(284, 261);
        this.Name = "RNG";
        this.Load += new System.EventHandler(this.RNG_Load);
        this.ResumeLayout(false);

    }
```

```
        private void RNG_Load(object sender, EventArgs e)
        {

        }
    }
}
```

Конвертор

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace Практика
{

    public partial class Converter : Form
    {
        public Converter()
        {
            InitializeComponent();
            comboBox1.SelectedIndex = 0;
            comboBox2.SelectedIndex = 0;
        }

        private void comboBox1_SelectedIndexChanged(object sender,
EventArgs e)
        {
            comboBox2.Items.Clear();
            switch (comboBox1.SelectedIndex)
            {
                case 0:
                    comboBox2.Items.Add("F");
                    break;
                case 1:
                    comboBox2.Items.Add("C");
                    break;
                case 2:
```

```
            comboBox2.Items.Add("см");
            comboBox2.Items.Add("м");
            comboBox2.Items.Add("км");
            break;
        case 3:
            comboBox2.Items.Add("мм");
            comboBox2.Items.Add("м");
            comboBox2.Items.Add("км");
            break;
        case 4:
            comboBox2.Items.Add("мм");
            comboBox2.Items.Add("см");
            comboBox2.Items.Add("км");
            break;
        case 5:
            comboBox2.Items.Add("мм");
            comboBox2.Items.Add("см");
            comboBox2.Items.Add("м");
            break;
        case 6:
            comboBox2.Items.Add("кг");
            comboBox2.Items.Add("т");
            break;
        case 7:
            comboBox2.Items.Add("г");
            comboBox2.Items.Add("т");
            break;
        case 8:
            comboBox2.Items.Add("г");
            comboBox2.Items.Add("кг");
            break;
    }
    comboBox2.SelectedIndex = 0;
    calc();
}

private void textBox1_TextChanged(object sender, EventArgs e)
{
    calc();
}

private void calc()
{
    try
    {
```

```
                double a = Double.Parse(textBox1.Text.ToString());
                if (comboBox1.Text.Equals("C")) textBox2.Text =
(Math.Round((a * 9 /
        5 + 32) * 100) / 100).ToString();
                if (comboBox1.Text.Equals("F")) textBox2.Text =
(Math.Round(((a -
        32) * 5 / 9) * 100) / 100).ToString();
                double m1 = 1;
                double m2 = 1;
                if (comboBox1.Text.Equals("см")) m1 = 0.1;
                if (comboBox1.Text.Equals("м")) m1 = 0.001;
                if (comboBox1.Text.Equals("км")) m1 = 0.000001;
                if (comboBox1.Text.Equals("кг")) m1 = 0.001;
                if (comboBox1.Text.Equals("т")) m1 = 0.000001;

                if (comboBox2.Text.Equals("см")) m2 = 0.1;
                if (comboBox2.Text.Equals("м")) m2 = 0.001;
                if (comboBox2.Text.Equals("км")) m2 = 0.000001;
                if (comboBox2.Text.Equals("кг")) m2 = 0.001;
                if (comboBox2.Text.Equals("т")) m2 = 0.000001;
                if (!(m1 == 1 && m2 == 1)) textBox2.Text = ((m2 / m1) *
        a).ToString();
                //if (!(m1 == 1 && m2 == 1) && m1 < m2) textBox2.Text = ((m2
/ m1) *
                a).ToString();
            }
            catch
            {
                textBox2.Text = "???";
            }
        }

        private void comboBox2_SelectedIndexChanged(object sender,
EventArgs e)
        {
            calc();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            Form1 form1 = new Form1();
            form1.Show();
            this.Hide();
        }
    }
```

```
    }
}
}
```