

#### 4.12.23

main page

Листинг интерфейса

```
<Window x:Class="WpfApp3.MainWindow"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:local="clr-namespace:WpfApp3"
    mc:Ignorable="d"
    Title="MainWindow" Height="450" Width="800">
    <Grid>
        <Grid.RowDefinitions>
            <RowDefinition Height="80"/>
            <RowDefinition/>
        </Grid.RowDefinitions>
        <StackPanel Orientation="Horizontal">
            <Button Click="b1_Click" Name="b1" Margin="5" Height="60" Width="100"
Content="Задание 1"/>
            <Button Click="b2_Click" Name="b2" Margin="5" Height="60" Width="100"
Content="Задание 2"/>
            <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="100"
Content="Задание 3"/>
            <Button Click="b4_Click" Name="b4" Margin="5" Height="60" Width="100"
Content="Задание 4"/>
            <Button Click="b5_Click" Name="b5" Margin="5" Height="60" Width="100"
Content="Задание 5"/>
        </StackPanel>
        <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"
Navigated="MyFrame_Navigated"/>
    </Grid>
</Window>
```

Листинг прогаммы

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp3
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {
            InitializeComponent();
        }

        private void b1_Click(object sender, RoutedEventArgs e)
        {
            MyFrame.Navigate(new Page1());
        }
    }
}
```

```
private void b2_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page2());
}

private void b3_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page3());
}

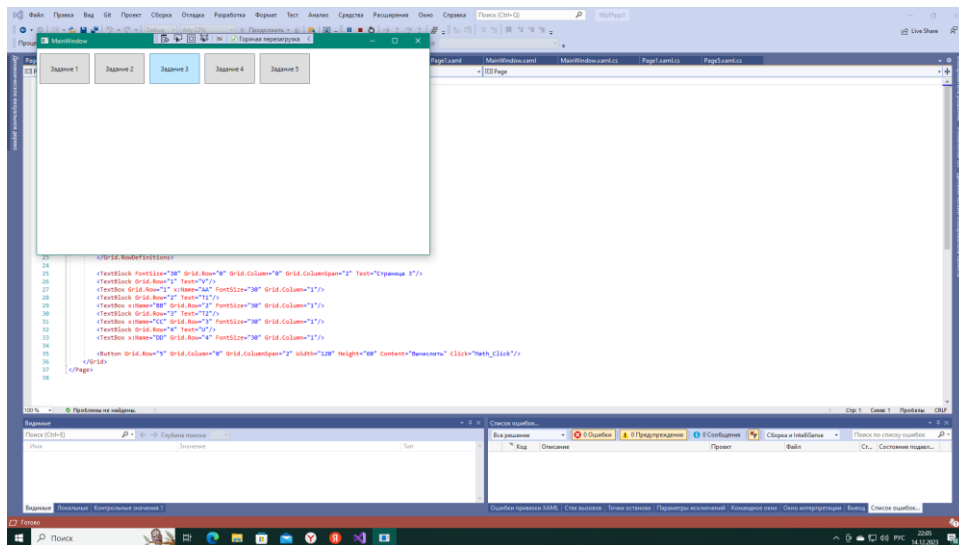
private void b4_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page4());
}

private void b5_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page5());
}

private void MyFrame_Navigated(object sender, NavigationEventArgs e)
{
}

}

}
```



## Задание 1

### Листинг интерфейса

```
<Page x:Class="WpfApp3.Page1"
```

```
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
xmlns:local="clr-namespace:WpfApp3"
```

```
mc:Ignorable="d"
```

```
d:DesignHeight="450" d:DesignWidth="800"
```

```
Title="Page1">
```

```
<Grid>
```

```
<Grid.RowDefinitions>
```

```
<RowDefinition Height="60"/>
```

```
<RowDefinition />
```

```
<RowDefinition />
```

```
<RowDefinition />
```

```
<RowDefinition />
```

```
<RowDefinition />
```

```
</Grid.RowDefinitions>
```

```
<Grid.ColumnDefinitions>
```

```

        <ColumnDefinition Width="100"/>

        <ColumnDefinition/>

    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 1"/>

    <TextBlock Margin="10" Grid.Row="1" Text="a" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>


</Grid>

</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

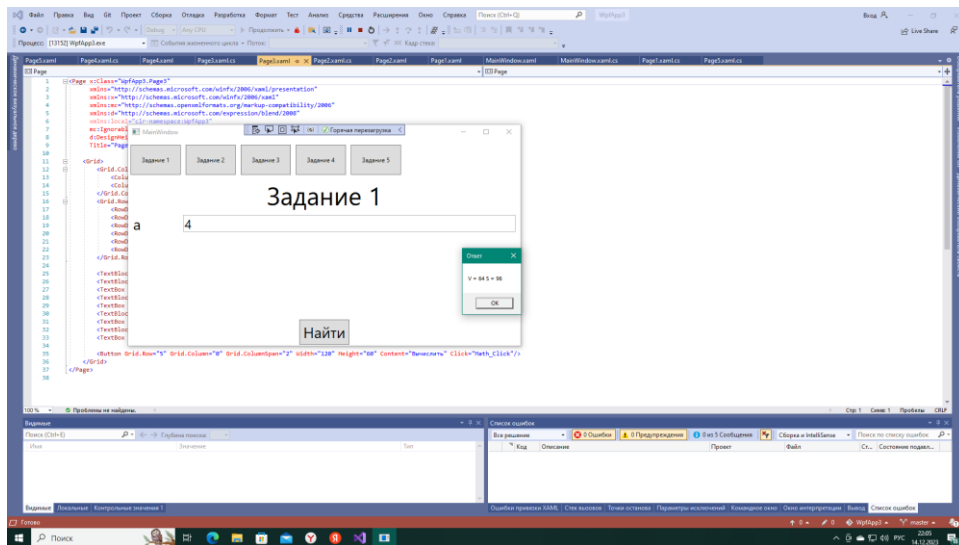
using static System.Math;

namespace WpfApp3
{
    /// <summary>

```

```
/// Логика взаимодействия для Page1.xaml
/// </summary>
public partial class Page1 : Page
{
    public Page1()
    {
        InitializeComponent();

        private void Button_Click(object sender, RoutedEventArgs e)
        {
            double a = double.Parse(AA.Text);
            double V = Pow(a, 3);
            double S = 6 * Pow(a, 2);
            MessageBox.Show($"V = {V} S = {S}", "Ответ");
        }
    }
}
```



## Задание 2

### Листинг интерфейса

<Page x:Class="WpfApp3.Page2"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:WpfApp3"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800"

Title="Page2">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition Width="100"/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<Grid.RowDefinitions>

<RowDefinition/>

<RowDefinition/>

<RowDefinition/>

<RowDefinition/>

```

        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>

    <TextBlock FontSize="30" Grid.Row="0" Grid.Column="0" Grid.ColumnSpan="2"
Text="Страница 3"/>

    <TextBlock Grid.Row="1" Text="A"/>
    <TextBox Grid.Row="1" x:Name="AA" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="2" Text="B"/>
    <TextBox x:Name="BB" Grid.Row="2" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="3" Text="C"/>
    <TextBox x:Name="CC" Grid.Row="3" FontSize="30" Grid.Column="1"/>

    <Button Grid.Row="5" Grid.Column="0" Grid.ColumnSpan="2" Width="120" Height="60"
Content="Вычислить" Click="Math_Click"/>

</Grid>
</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

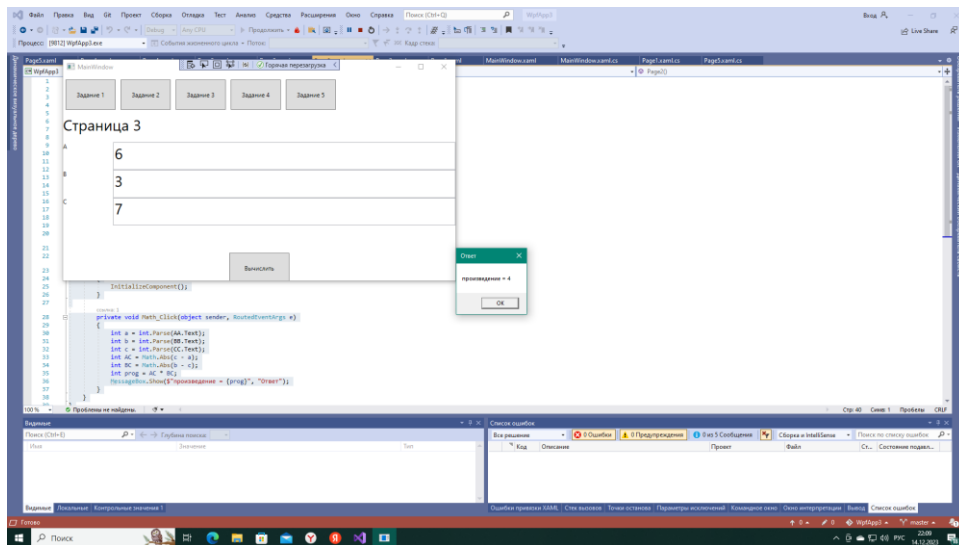
using System.Windows.Shapes;

```



```
namespace WpfApp3
{
    /// <summary>
    /// Логика взаимодействия для Page2.xaml
    /// </summary>
    public partial class Page2 : Page
    {
        public Page2()
        {
            InitializeComponent();
        }

        private void Math_Click(object sender, RoutedEventArgs e)
        {
            int a = int.Parse(AA.Text);
            int b = int.Parse(BB.Text);
            int c = int.Parse(CC.Text);
            int AC = Math.Abs(c - a);
            int BC = Math.Abs(b - c);
            int prog = AC * BC;
            MessageBox.Show($"произведение = {prog}", "Ответ");
        }
    }
}
```



### Задание 3

#### Листинг интерфейса

```
<Page x:Class="WpfApp3.Page3"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp3"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page3">
```

```
<Grid>
```

```
    <Grid.ColumnDefinitions>
```

```
        <ColumnDefinition Width="100"/>
```

```
    </Grid.ColumnDefinitions>
```

```
</Grid>
```

```
<Grid.RowDefinitions>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```

        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>

    <TextBlock FontSize="30" Grid.Row="0" Grid.Column="0" Grid.ColumnSpan="2"
Text="Страница 3"/>
    <TextBlock Grid.Row="1" Text="V"/>
    <TextBox Grid.Row="1" x:Name="AA" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="2" Text="T1"/>
    <TextBox x:Name="BB" Grid.Row="2" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="3" Text="T2"/>
    <TextBox x:Name="CC" Grid.Row="3" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="4" Text="U"/>
    <TextBox x:Name="DD" Grid.Row="4" FontSize="30" Grid.Column="1"/>

    <Button Grid.Row="5" Grid.Column="0" Grid.ColumnSpan="2" Width="120" Height="60"
Content="Вычислить" Click="Math_Click"/>
</Grid>
</Page>

```

Листинг прогаммы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;

```

```
using System.Windows.Navigation;
```

```
using System.Windows.Shapes;
```

```
namespace WpfApp3
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page3.xaml
```

```
    /// </summary>
```

```
    public partial class Page3 : Page
```

```
    {
```

```
        public Page3()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Math_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            double V = double.Parse(AA.Text);
```

```
            double T1 = double.Parse(BB.Text);
```

```
            double T2 = double.Parse(CC.Text);
```

```
            double U = double.Parse(DD.Text);
```

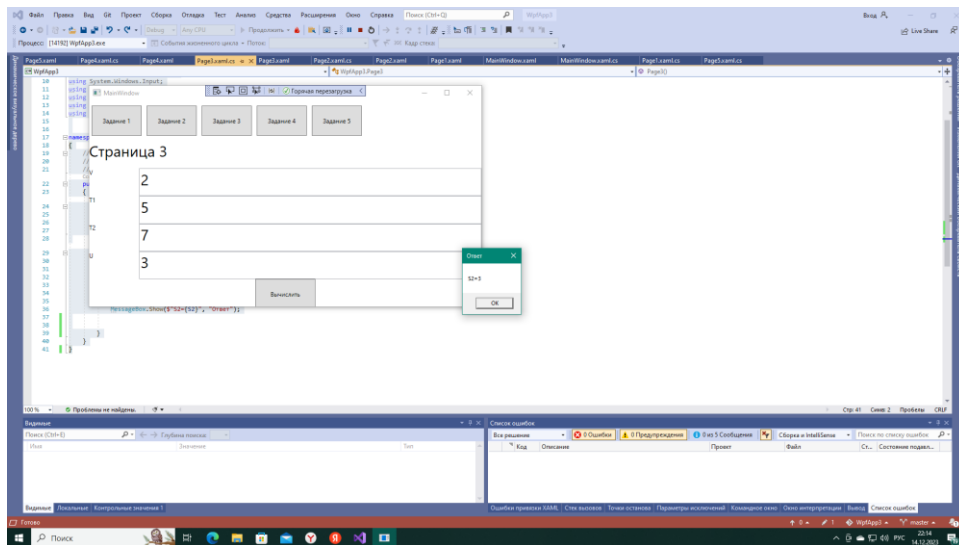
```
            double S2 = T1 * V + T2 * (V - U);
```

```
            MessageBox.Show($"S2={S2}", "Ответ");
```

```
        }
```

```
    }
```

```
}
```



## Задание 4

### Листинг интерфейса

```
<Page x:Class="WpfApp3.Page4"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp3"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page4">
```

```
<Grid>
```

```
    <Grid.ColumnDefinitions>
```

```
        <ColumnDefinition Width="100"/>
```

```
    </ColumnDefinition/>
```

```
</Grid.ColumnDefinitions>
```

```
<Grid.RowDefinitions>
```

```
    <RowDefinition/>
```

```
<RowDefinition/>
```

```
<RowDefinition/>
```

```
<RowDefinition/>
```

```

        <RowDefinition/>
    </Grid.RowDefinitions>

    <TextBlock FontSize="30" Grid.Row="0" Grid.Column="0" Grid.ColumnSpan="2"
Text="Страница 4"/>

    <TextBlock Grid.Row="1" Text="X"/>
    <TextBox Grid.Row="1" x:Name="AA" FontSize="30" Grid.Column="1"/>
    <TextBlock Grid.Row="2" Text="a"/>
    <TextBox Grid.Row="2" x:Name="BB" FontSize="30" Grid.Column="1"/>

    <Button Grid.Row="4" Grid.Column="0" Grid.ColumnSpan="2" Width="120" Height="60"
Content="Вычислить" Click="Math_Click"/>
</Grid>
</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

using static System.Math;

namespace WpfApp3

```

```

{
    /// <summary>
    /// Логика взаимодействия для Page4.xaml
    /// </summary>
    public partial class Page4 : Page
    {
        public Page4()
        {
            InitializeComponent();
        }

        private void Math_Click(object sender, RoutedEventArgs e)
        {
            double x = double.Parse(AA.Text);
            double a = double.Parse(BB.Text);
            double p = 1 / Cos(x) + Log(Abs(Tan(x / 2))) + x / (1 + (x / (1 + x)));
            double alfa = (Pow(p, 5) * Sqrt(a * Pow(x, 3) + 2)) / 2 * Cos(x);
            MessageBox.Show($"alfa={alfa}", "Ответ");
        }

        private int Sqrt(double v)
        {
            throw new NotImplementedException();
        }

        private int Pow(double p, int v)
        {
            throw new NotImplementedException();
        }

        private object Tan(double v)

```

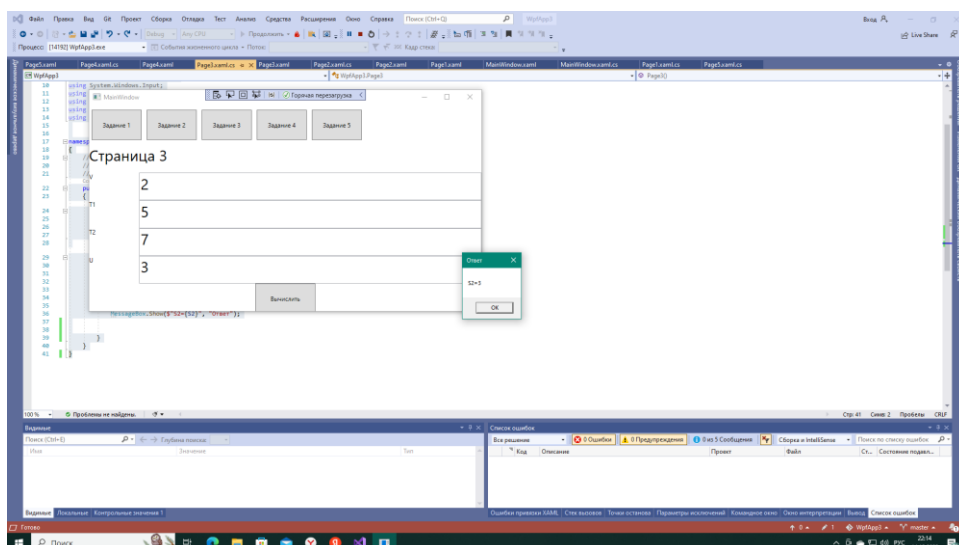
```
{
    throw new NotImplementedException();
}
```

```
private object Abs(object p)
{
    throw new NotImplementedException();
}
```

```
private int Log(object p)
{
    throw new NotImplementedException();
}
```

```
private int Cos(double x)
{
    throw new NotImplementedException();
}
```

```
}
```





## Задание 5

### Листинг интерфейса

```
<Page x:Class="WpfApp3.Page5"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp3"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page5">

    <Grid>
        <Grid.ColumnDefinitions>
            <ColumnDefinition Width="100"/>
            <ColumnDefinition/>
        </Grid.ColumnDefinitions>
        <Grid.RowDefinitions>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
        </Grid.RowDefinitions>

        <TextBlock FontSize="30" Grid.Row="0" Grid.Column="0" Grid.ColumnSpan="2"
            Text="Страница 5"/>

        <TextBlock Grid.Row="1" Text="A1"/>
```

```

<TextBox Grid.Row="1" x:Name="AA" FontSize="30" Grid.Column="1"/>
<TextBlock Grid.Row="2" Text="B1"/>
<TextBox x:Name="BB" Grid.Row="2" FontSize="30" Grid.Column="1"/>
<TextBlock Grid.Row="3" Text="C1"/>
<TextBox x:Name="CC" Grid.Row="3" FontSize="30" Grid.Column="1"/>
<TextBlock Grid.Row="4" Text="A2"/>
<TextBox x:Name="AA2" Grid.Row="4" FontSize="30" Grid.Column="1"/>
<TextBlock Grid.Row="5" Text="B2"/>
<TextBox x:Name="BB2" Grid.Row="5" FontSize="30" Grid.Column="1"/>
<TextBlock Grid.Row="6" Text="C2"/>
<TextBox x:Name="CC2" Grid.Row="6" FontSize="30" Grid.Column="1"/>

<Button Grid.Row="7" Grid.Column="0" Grid.ColumnSpan="2" Width="120" Height="60"
Content="Вычислить" Click="Math_Click"/>

</Grid>

</Page>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;

```

```
using System.Windows.Shapes;
```

```
namespace WpfApp3
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page5.xaml
```

```
    /// </summary>
```

```
    public partial class Page5 : Page
```

```
    {
```

```
        public Page5()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Math_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            double A1 = double.Parse(AA.Text);
```

```
            double B1 = double.Parse(BB.Text);
```

```
            double C1 = double.Parse(CC.Text);
```

```
            double A2 = double.Parse(AA2.Text);
```

```
            double B2 = double.Parse(AA2.Text);
```

```
            double C2 = double.Parse(CC2.Text);
```

```
            double D = A1 * B2 - A2 * B1;
```

```
            double x = (C1 * B2 - C2 * B1) / D;
```

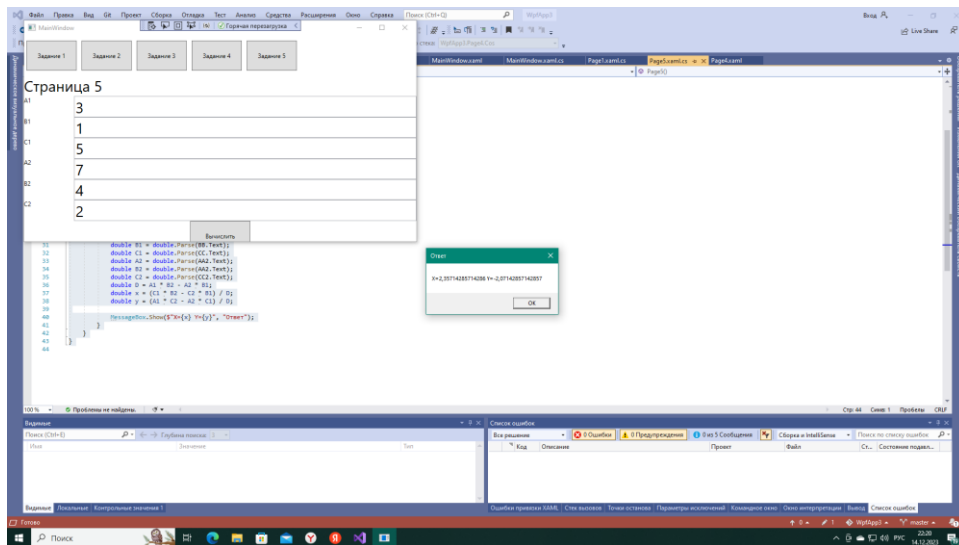
```
            double y = (A1 * C2 - A2 * C1) / D;
```

```
            MessageBox.Show($"X={x} Y={y}", "Ответ");
```

```
        }
```

```
    }
```

```
}
```



5.12.23

Main page

Листинг интерфейса

<Window x:Class="WpfApp4.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:WpfApp4"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="80"/>

<RowDefinition/>

</Grid.RowDefinitions>

<StackPanel Orientation="Horizontal">

<Button Click="b1\_Click" Name="b1" Margin="5" Height="60" Width="100"  
Content="Задание 1"/>

<Button Click="b2\_Click" Name="b2" Margin="5" Height="60" Width="100"  
Content="Задание 2"/>

```

        <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="100"
Content="Задание 3"/>

    </StackPanel>

    <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"/>

</Grid>
</Window>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;


namespace WpfApp4
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {

```

```

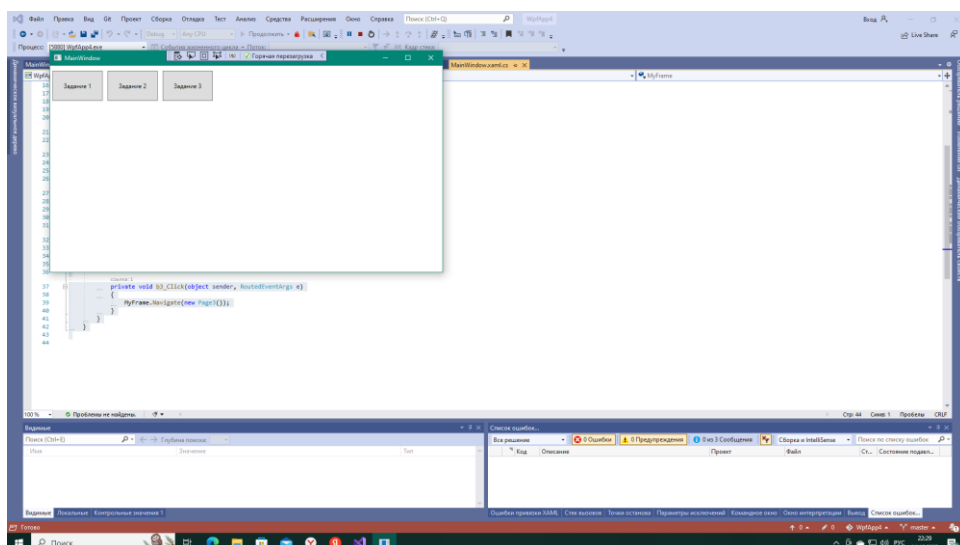
        InitializeComponent();
    }

    private void b1_Click(object sender, RoutedEventArgs e)
    {
        MyFrame.Navigate(new Page1());
    }

    private void b2_Click(object sender, RoutedEventArgs e)
    {
        MyFrame.Navigate(new Page2());
    }

    private void b3_Click(object sender, RoutedEventArgs e)
    {
        MyFrame.Navigate(new Page3());
    }
}
}
}

```



Задание 1

Листинг интерфейса

```

<Page x:Class="WpfApp4.Page1"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp4"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page1">

    <Grid>

        <Grid.RowDefinitions>
            <RowDefinition Height="60"/>
            <RowDefinition />
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>
        </Grid.RowDefinitions>

        <Grid.ColumnDefinitions>
            <ColumnDefinition Width="100"/>
            <ColumnDefinition/>
        </Grid.ColumnDefinitions>

        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
            Grid.ColumnSpan="2" Text="Задание 4"/>

        <TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

        <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" />

        <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
            Width="100" Grid.ColumnSpan="2"/>

```

```
</Grid>
```

```
</Page>
```

Листинг программы

```
using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;  
using System.Windows;  
using System.Windows.Controls;  
using System.Windows.Data;  
using System.Windows.Documents;  
using System.Windows.Input;  
using System.Windows.Media;  
using System.Windows.Media.Imaging;  
using System.Windows.Navigation;  
using System.Windows.Shapes;
```

```
namespace WpfApp4
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page1.xaml
```

```
    /// </summary>
```

```
    public partial class Page1 : Page
```

```
    {
```

```
        public Page1()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Button_Click(object sender, RoutedEventArgs e)
```



```

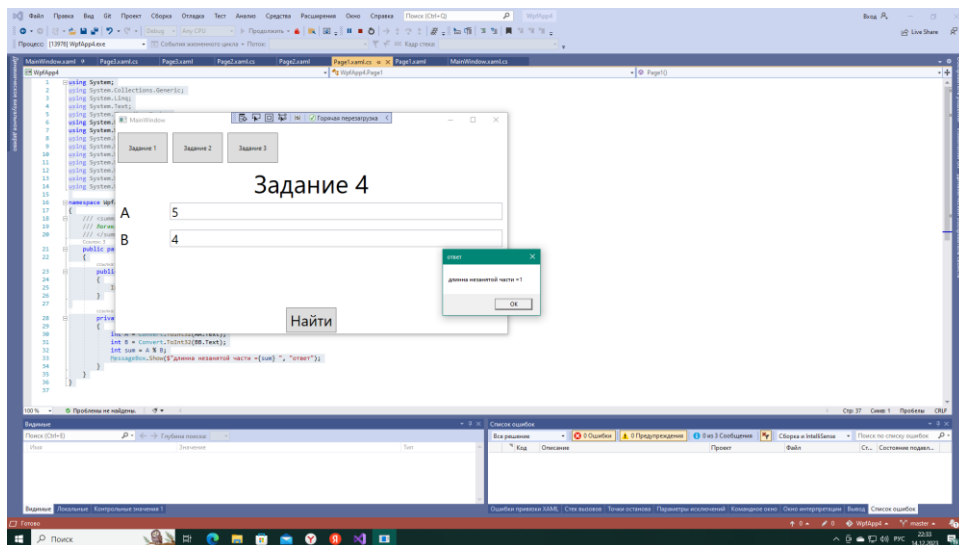
{
    int A = Convert.ToInt32(AA.Text);

    int B = Convert.ToInt32(BB.Text);

    int sum = A % B;

    MessageBox.Show($"длина не занятой части ={sum} ", "ответ");
}
}
}

```



## Задание 2

### Листинг интерфейса

```
<Page x:Class="WpfApp4.Page2"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp4"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page2">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```

        <RowDefinition Height="60"/>
        <RowDefinition />
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>
    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 2"/>
    <TextBlock Margin="10" Grid.Row="1" Text="N" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
</Grid>
</Page>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;

```

```
using System.Windows.Navigation;
```

```
using System.Windows.Shapes;
```

```
namespace WpfApp4
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page2.xaml
```

```
    /// </summary>
```

```
    public partial class Page2 : Page
```

```
    {
```

```
        public Page2()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Button_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            int N = Convert.ToInt32(AA.Text);
```

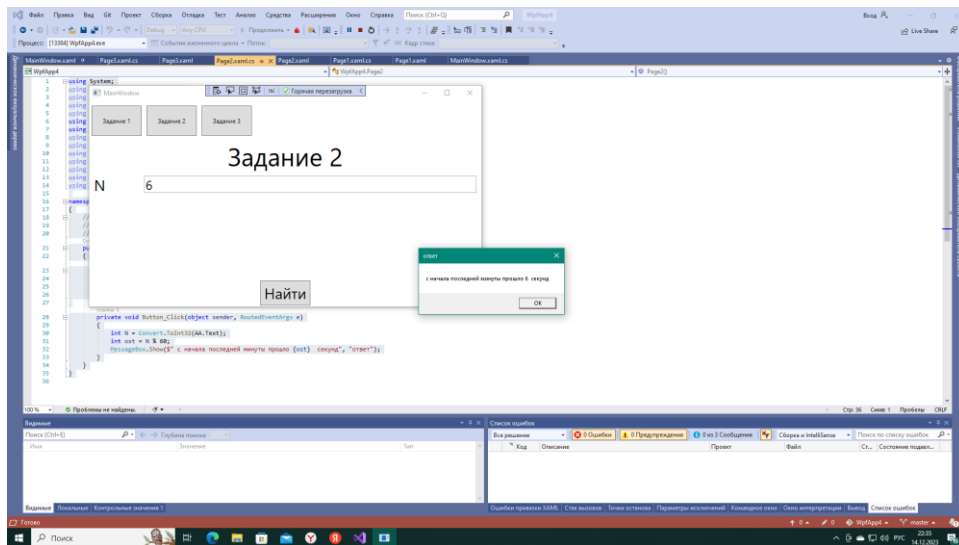
```
            int ost = N % 60;
```

```
            MessageBox.Show($" с начала последней минуты прошло {ost} секунд", "ответ");
```

```
        }
```

```
    }
```

```
}
```



### Задание 3

#### Листинг интерфейса

```
<Page x:Class="WpfApp4.Page3"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp4"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page3">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
    </RowDefinition />
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    </Grid.RowDefinitions>
```

```
    <Grid.ColumnDefinitions>
```

```

        <ColumnDefinition Width="100"/>

        <ColumnDefinition/>

    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 3"/>

    <TextBlock Margin="10" Grid.Row="1" Text="К" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>


</Grid>

</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp4
{
    /// <summary>

    /// Логика взаимодействия для Page3.xaml

```

```
/// </summary>
```

```
public partial class Page3 : Page
```

```
{
```

```
    public Page3()
```

```
    {
```

```
        InitializeComponent();
```

```
    }
```

```
    private void Button_Click(object sender, RoutedEventArgs e)
```

```
    {
```

```
        int k = int.Parse(AA.Text);
```

```
        switch ((k + 2) % 7)
```

```
        {
```

```
            case 1:
```

```
                MessageBox.Show($" Понедельник", "ответ");
```

```
                break;
```

```
            case 2:
```

```
                MessageBox.Show($" Вторник", "ответ");
```

```
                break;
```

```
            case 3:
```

```
                MessageBox.Show($" Среда", "ответ");
```

```
                break;
```

```
            case 4:
```

```
                MessageBox.Show($" Четверг", "ответ");
```

```
                break;
```

```
            case 5:
```

```
                MessageBox.Show($" Пятница", "ответ");
```

```
                break;
```

case 6:

```
MessageBox.Show($" Суббота", "ответ");
```

```
break;
```

case 0:

case 7:

```
MessageBox.Show($" Воскресенье", "ответ");
```

```
break;
```

default:

```
MessageBox.Show($"Ошибка ", "ответ");
```

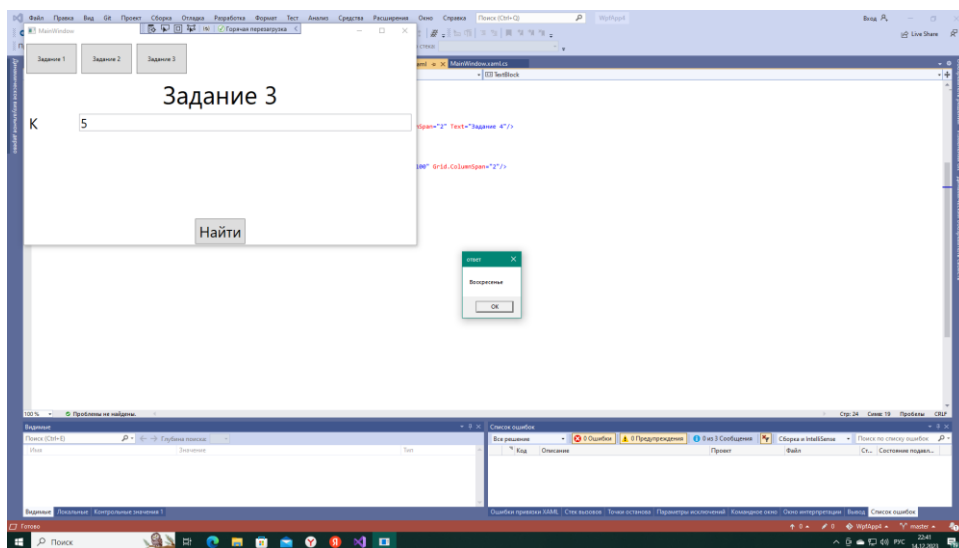
```
break;
```

```
}
```

```
}
```

```
}
```

```
}
```



5.12.23

Main page

Листинг интерфейса

```
<Window x:Class="WpfApp2.MainWindow"
```

```
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
xmlns:local="clr-namespace:WpfApp2"
mc:Ignorable="d"
Title="MainWindow" Height="450" Width="800">
<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="80"/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <StackPanel Orientation="Horizontal">
        <Button Click="b1_Click" Name="b1" Margin="5" Height="60" Width="100"
Content="Задание 1"/>
        <Button Click="b2_Click" Name="b2" Margin="5" Height="60" Width="100"
Content="Задание 2"/>
        <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="100"
Content="Задание 3"/>
        <Button Click="b4_Click" Name="b4" Margin="5" Height="60" Width="100"
Content="Задание 4"/>
        <Button Click="b5_Click" Name="b5" Margin="5" Height="60" Width="100"
Content="Задание 5"/>
    </StackPanel>
    <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"/>
</Grid>
</Window>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;

```



```
using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;


namespace WpfApp2
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {
            InitializeComponent();
        }


        private void b1_Click(object sender, RoutedEventArgs e)
        {

        }


        private void b2_Click(object sender, RoutedEventArgs e)
        {

        }


        private void b3_Click(object sender, RoutedEventArgs e)
        {
```

```
}
```

```
private void b4_Click(object sender, RoutedEventArgs e)
```

```
{
```

```
}
```

```
private void b5_Click(object sender, RoutedEventArgs e)
```

```
{
```

```
}
```

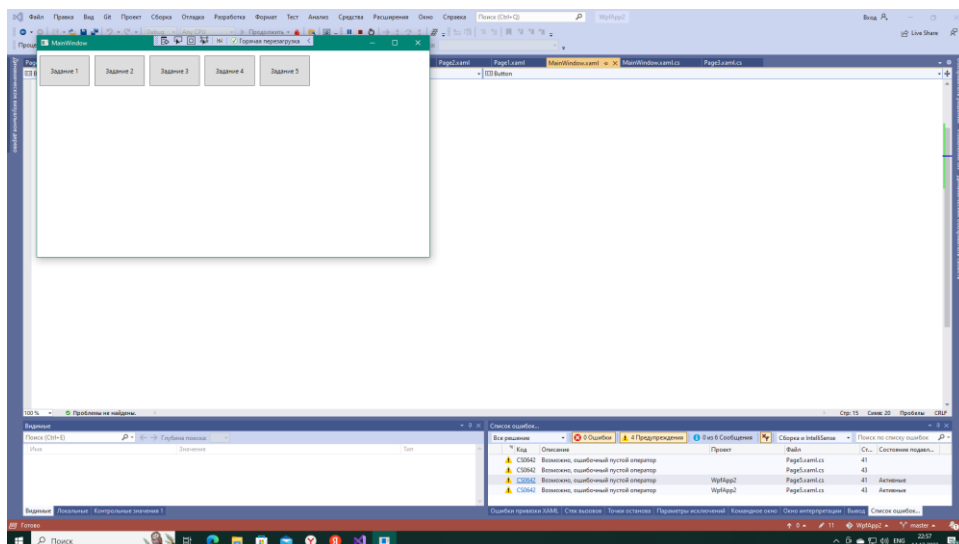
```
private void MyFrame_Navigated(object sender, NavigationEventArgs e)
```

```
{
```

```
}
```

```
}
```

```
}
```



Задание 1

Листинг интерфейса

```
<Page x:Class="WpfApp2.Page1"
```

```

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
xmlns:local="clr-namespace:WpfApp2"
mc:Ignorable="d"
d:DesignHeight="450" d:DesignWidth="800"
Title="Page1">

<Grid>

    <Grid.RowDefinitions>

        <RowDefinition Height="60"/>

        <RowDefinition />

        <RowDefinition/>

        <RowDefinition/>

        <RowDefinition/>

        <RowDefinition/>

    </Grid.RowDefinitions>

    <Grid.ColumnDefinitions>

        <ColumnDefinition Width="100"/>

        <ColumnDefinition/>

    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 1"/>

    <TextBlock Margin="10" Grid.Row="1" Text="N" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1"
TextChanged="AA_TextChanged" Text="5" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>

</Page>

```

Листинг программы

```
<Page x:Class="WpfApp2.Page2"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp2"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page2">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
        <RowDefinition />
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
    </Grid.RowDefinitions>
```

```
    <Grid.ColumnDefinitions>
```

```
        <ColumnDefinition Width="100"/>
```

```
        <ColumnDefinition/>
```

```
    </Grid.ColumnDefinitions>
```

```
        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 2"/>
```

```
        <TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
```

```
        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" Text="12"
/>
```

```
        <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
```

```
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" Text="453"
/>
```

```
<Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
```

```
</Grid>
```

```
</Page>
```

Задания 2

Листинг интерфейса

```
<Page x:Class="WpfApp2.Page2"
```

```
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
xmlns:local="clr-namespace:WpfApp2"
```

```
mc:Ignorable="d"
```

```
d:DesignHeight="450" d:DesignWidth="800"
```

```
Title="Page2">
```

```
<Grid>
```

```
<Grid.RowDefinitions>
```

```
<RowDefinition Height="60"/>
```

```
<RowDefinition />
```

```
<RowDefinition/>
```

```
<RowDefinition/>
```

```
<RowDefinition/>
```

```
<RowDefinition/>
```

```
</Grid.RowDefinitions>
```

```
<Grid.ColumnDefinitions>
```

```
<ColumnDefinition Width="100"/>
```

```
<ColumnDefinition/>
```

```
</Grid.ColumnDefinitions>
```

```
<TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 2"/>
```

```
<TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
```

```

        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" Text="3" />
        <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" Text="5" />
        <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
    </Grid>
</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp2
{
    /// <summary>
    /// Логика взаимодействия для Page2.xaml
    /// </summary>
    public partial class Page2 : Page
    {
        public Page2()
    }
}

```

```

{
    InitializeComponent();
}

private void BB_TextChanged(object sender, TextChangedEventArgs e)
{
    {

        int a = int.Parse(AA.Text);
        int b = int.Parse(BB.Text);
        if (a > b)
        {
            MessageBox.Show($"второе число меньше первого", "ответ");
        }
        else
        {
            MessageBox.Show($"первое число меньше второго", "ответ");
        }
    }
}

private void Button_Click(object sender, RoutedEventArgs e)
{
    }
}
}

```

### Задание 3

#### Листинг интерфейса

```

<Page x:Class="WpfApp2.Page3"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

```

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
xmlns:local="clr-namespace:WpfApp2"
mc:Ignorable="d"
d:DesignHeight="450" d:DesignWidth="800"
Title="Page3">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
        <RowDefinition />
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
        <RowDefinition/>
```

```
    </Grid.RowDefinitions>
```

```
    <Grid.ColumnDefinitions>
```

```
        <ColumnDefinition Width="100"/>
```

```
        <ColumnDefinition/>
```

```
    </Grid.ColumnDefinitions>
```

```
        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 3"/>
```

```
        <TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
```

```
        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" Text="12"
/>
```

```
        <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
```

```
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" Text="21"
/>
```

```
        <TextBlock Margin="10" Grid.Row="3" Text="C" FontSize="30" VerticalAlignment="Center"/>
```

```
        <TextBox x:Name="CC" FontSize="25" Margin="10" Grid.Row="3" Grid.Column="1"
TextChanged="CC_TextChanged" Text="33" />
```



```
<Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
```

```
</Grid>
```

```
</Page>
```

Листинг программы

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp2
{
    /// <summary>
    /// Логика взаимодействия для Page3.xaml
    /// </summary>
    public partial class Page3 : Page
    {
        public Page3()
        {
            InitializeComponent();
        }
    }
}
```

```

    }

    private void CC_TextChanged(object sender, TextChangedEventArgs e)
    {
    }

    private void Button_Click(object sender, RoutedEventArgs e)
    {

    }
}
}

```

#### Задание 4

##### Листинг интерфейса

```

<Page x:Class="WpfApp2.Page4"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp2"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page4">

    <Grid>

        <Grid.RowDefinitions>
            <RowDefinition Height="60"/>
            <RowDefinition />
            <RowDefinition/>
            <RowDefinition/>
            <RowDefinition/>

```

```

        <RowDefinition/>
    </Grid.RowDefinitions>

    <Grid.ColumnDefinitions>

        <ColumnDefinition Width="100"/>

        <ColumnDefinition/>
    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 4"/>

    <TextBlock Margin="10" Grid.Row="1" Text="X" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" Text="34"
/>

    <TextBlock Margin="10" Grid.Row="2" Text="K" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1"
TextChanged="BB_TextChanged" Text="543" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

```

```

</Grid>
</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

```

```
using System.Windows.Navigation;
```

```
using System.Windows.Shapes;
```

```
namespace WpfApp2
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page4.xaml
```

```
    /// </summary>
```

```
    public partial class Page4 : Page
```

```
    {
```

```
        public Page4()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void BB_TextChanged(object sender, TextChangedEventArgs e)
```

```
        {
```

```
            double x = double.Parse(AA.Text);
```

```
            double k = double.Parse(BB.Text);
```

```
            double y = 0;
```

```
            if (k == 3)
```

```
            {
```

```
                 $y = \sin(x) + 2;$ 
```

```
            }
```

```
            else if (k == 20)
```

```
            {
```

```
                 $\cos(x * x);$ 
```

```
            }
```

```
            else if (k == 10 || k == 15)
```

```
            {
```

```

        y = Tan(x) + Sin(x);
    }
    else { MessageBox.Show("переменная k не подходит"); }

    MessageBox.Show($"y = {y}", "Ответ");
}

private void Cos(double v)
{
    throw new NotImplementedException();
}

private int Tan(double x)
{
    throw new NotImplementedException();
}

private int Sin(double x)
{
    throw new NotImplementedException();
}

private void Button_Click(object sender, RoutedEventArgs e)
{
}
}

```

## Задание 5

### Листинг интерфейса

```
<Page x:Class="WpfApp2.Page5"
```

```
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
xmlns:local="clr-namespace:WpfApp2"
mc:Ignorable="d"
d:DesignHeight="450" d:DesignWidth="800"
Title="Page5">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
    </Grid.RowDefinitions>
```

```
    <Grid.ColumnDefinitions>
```

```
        <ColumnDefinition Width="100"/>
```

```
    </Grid.ColumnDefinitions>
```

```
    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
```

```
    Grid.ColumnSpan="2" Text="Задание 5"/>
```

```
    <TextBlock Margin="10" Grid.Row="1" Text="X" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="2" Text="Y" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="3" Text="Z" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="4" Text="A" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="5" Text="B" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="6" Text="C" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="7" Text="D" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="8" Text="E" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="9" Text="F" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="10" Text="G" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="11" Text="H" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="12" Text="I" FontSize="30" VerticalAlignment="Center"/>
```

```
    <TextBlock Margin="10" Grid.Row="13" Text="J" FontSize="30" VerticalAlignment="Center"/>
```

```
</Grid>
```

```
</Page>
```

Листинг программы

```
using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;  
using System.Windows;  
using System.Windows.Controls;  
using System.Windows.Data;  
using System.Windows.Documents;  
using System.Windows.Input;  
using System.Windows.Media;  
using System.Windows.Media.Imaging;  
using System.Windows.Navigation;  
using System.Windows.Shapes;
```

```
namespace WpfApp2
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page5.xaml
```

```
    /// </summary>
```

```
    public partial class Page5 : Page
```

```
    {
```

```
        public Page5()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void BB_TextChanged(object sender, TextChangedEventArgs e)
```

```

{

}

private void Button_Click(object sender, RoutedEventArgs e)
{
    double x = double.Parse(AA.Text);
    double y = double.Parse(BB.Text);
#pragma warning disable CS0219 // Переменная назначена, но ее значение не используется
    string s;
#pragma warning restore CS0219 // Переменная назначена, но ее значение не используется

    if (y >= x && y <= 0 && x >= -23) ;
    {
        if (y == x && y == 0 && x == -23) ;
        {
            s = "На границе";
        }
    }

}

}

}
}

```

5.12.23

Main page

Листинг интерфейса



```

<Window x:Class="WpfApp4.MainWindow"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:local="clr-namespace:WpfApp4"
    mc:Ignorable="d"
    Title="MainWindow" Height="450" Width="800">
    <Grid>
        <Grid.RowDefinitions>
            <RowDefinition Height="80"/>
            <RowDefinition/>
        </Grid.RowDefinitions>
        <StackPanel Orientation="Horizontal">
            <Button Click="b1_Click" Name="b1" Margin="5" Height="60" Width="100"
Content="Задание 1"/>
            <Button Click="b2_Click" Name="b2" Margin="5" Height="60" Width="100"
Content="Задание 2"/>
            <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="100"
Content="Задание 3"/>
        </StackPanel>
        <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"/>
    </Grid>
</Window>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;

```

```
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp4
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {
            InitializeComponent();
        }

        private void b1_Click(object sender, RoutedEventArgs e)
        {
            MyFrame.Navigate(new Page1());
        }

        private void b2_Click(object sender, RoutedEventArgs e)
        {
            MyFrame.Navigate(new Page2());
        }

        private void b3_Click(object sender, RoutedEventArgs e)
        {

```

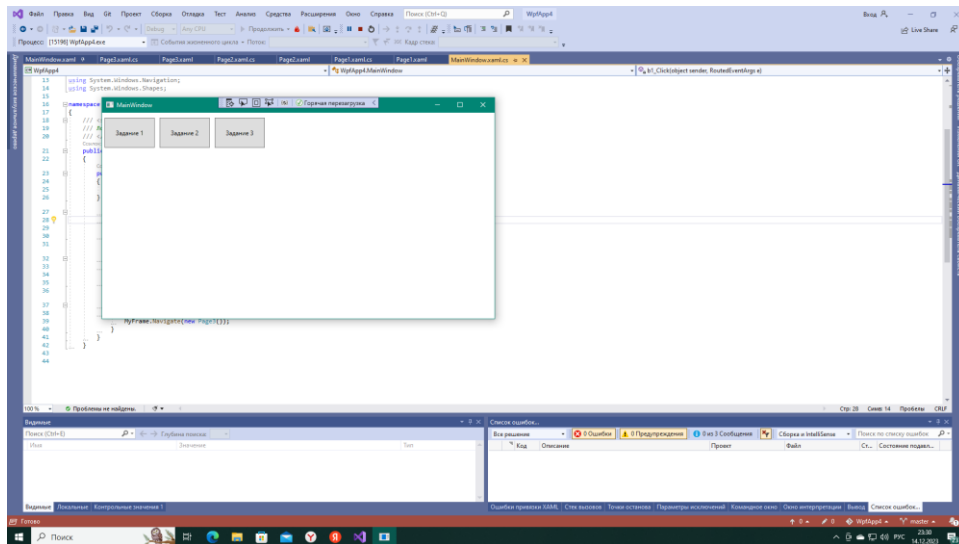
```

        MyFrame.Navigate(new Page3());
    }

}

}

```



## Задание 1

### Листинг интерфейса

```
<Page x:Class="WpfApp4.Page1"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp4"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page1">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
    </RowDefinition />
```

```
    </RowDefinition/>
```

```

        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>
    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 4"/>
    <TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
    <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" />
    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>
</Page>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;

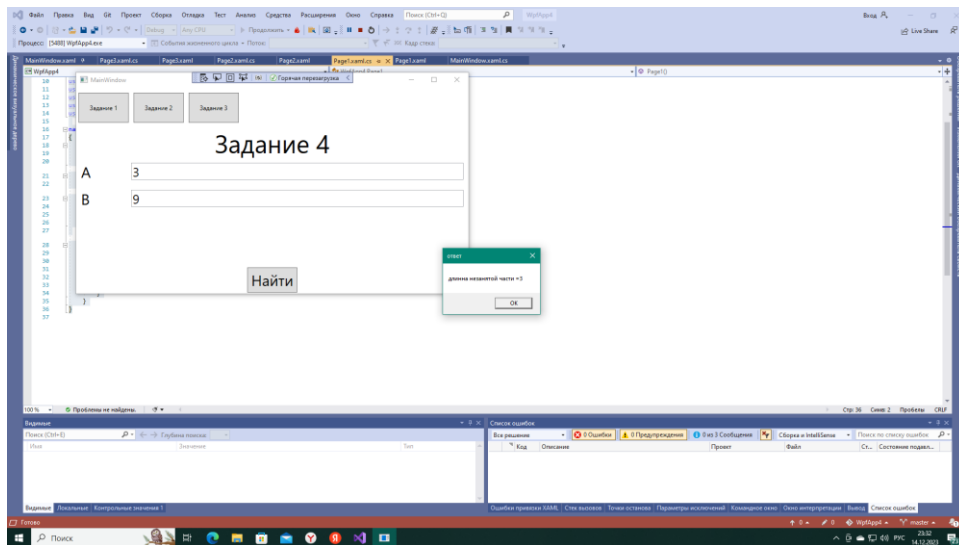
```

```
using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp4
{
    /// <summary>
    /// Логика взаимодействия для Page1.xaml
    /// </summary>
    public partial class Page1 : Page
    {
        public Page1()
        {
            InitializeComponent();
        }

        private void Button_Click(object sender, RoutedEventArgs e)
        {
            int A = Convert.ToInt32(AA.Text);
            int B = Convert.ToInt32(BB.Text);
            int sum = A % B;
            MessageBox.Show($"длина незанятой части ={sum} ", "ответ");
        }
    }
}
```



## Задание 2

### Листинг интерфейса

```
<Page x:Class="WpfApp4.Page2"
```

```
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```

```
    xmlns:local="clr-namespace:WpfApp4"
```

```
    mc:Ignorable="d"
```

```
    d:DesignHeight="450" d:DesignWidth="800"
```

```
    Title="Page2">
```

```
<Grid>
```

```
    <Grid.RowDefinitions>
```

```
        <RowDefinition Height="60"/>
```

```
    </RowDefinition />
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
    <RowDefinition/>
```

```
</Grid.RowDefinitions>
```

```
<Grid.ColumnDefinitions>
```

```

        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 2"/>

    <TextBlock Margin="10" Grid.Row="1" Text="N" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>
</Page>

```

### Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp4
{
    /// <summary>
    /// Логика взаимодействия для Page2.xaml
    /// </summary>

```

```

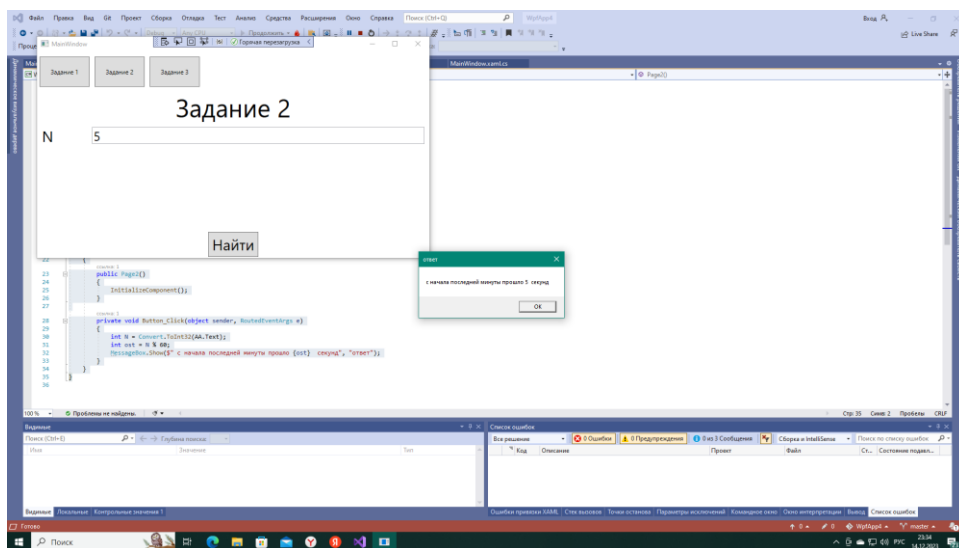
public partial class Page2 : Page
{
    public Page2()
    {
        InitializeComponent();

        private void Button_Click(object sender, RoutedEventArgs e)
        {
            int N = Convert.ToInt32(AA.Text);

            int ost = N % 60;

            MessageBox.Show($"с начала последней минуты прошло {ost} секунд", "ответ");
        }
    }
}

```



### Задание 3

#### Листинг интерфейса

```
<Page x:Class="WpfApp4.Page3"
```

```
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

```
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
```

```
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
```



```

xmlns:local="clr-namespace:WpfApp4"
mc:Ignorable="d"
d:DesignHeight="450" d:DesignWidth="800"
Title="Page3">

<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="60"/>
        <RowDefinition />
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 3"/>

    <TextBlock Margin="10" Grid.Row="1" Text="К" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>
</Page>

```

Листинг программы

```
namespace WpfApp4
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page3.xaml
```

```
/// </summary>
```

```
public partial class Page3 : Page
```

```
{
```

```
    public Page3()
```

```
    {
```

```
        InitializeComponent();
```

```
    }
```

```
    private void Button_Click(object sender, RoutedEventArgs e)
```

```
    {
```

```
        int k = int.Parse(AA.Text);
```

```
        switch ((k + 2) % 7)
```

```
        {
```

```
            case 1:
```

```
                MessageBox.Show($" Понедельник", "ответ");
```

```
                break;
```

```
            case 2:
```

```
                MessageBox.Show($" Вторник", "ответ");
```

```
                break;
```

```
            case 3:
```

```
                MessageBox.Show($" Среда", "ответ");
```

```
                break;
```

```
            case 4:
```

```
                MessageBox.Show($" Четверг", "ответ");
```

```
                break;
```

```
            case 5:
```

```
                MessageBox.Show($" Пятница", "ответ");
```

```
                break;
```

case 6:

```
MessageBox.Show($" Суббота", "ответ");
```

```
break;
```

case 0:

case 7:

```
MessageBox.Show($" Воскресенье", "ответ");
```

```
break;
```

default:

```
MessageBox.Show($"Ошибка ", "ответ");
```

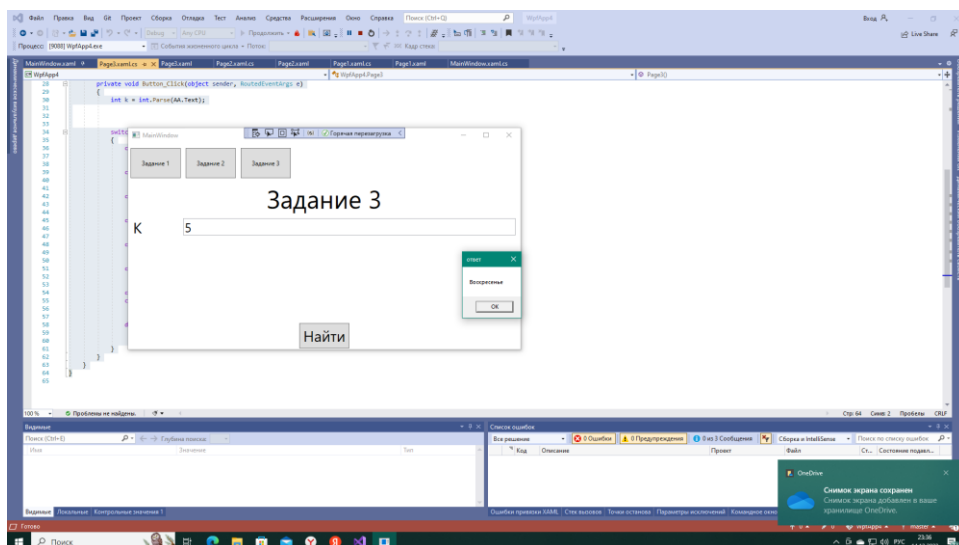
```
break;
```

```
}
```

```
}
```

```
}
```

```
}
```



7.12.23

Main page

Листинг интерфейса

<Window x:Class="WpfApp6.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

```

xmlns:local="clr-namespace:MyLab4"
mc:Ignorable="d"
Title="MainWindow" Height="450" Width="800">
<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="80"/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <StackPanel Orientation="Horizontal" Margin="52,0,-52,0">
        <Button Click="b1_Click" Name="b1" Margin="5" Height="60" Width="80" Content="Задание
1"/>
        <Button Click="b2_Click" Name="b2" Margin="5" Height="60" Width="80" Content="Задание
2"/>
        <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="80" Content="Задание
3"/>
        <Button Click="b4_Click" Name="b4" Margin="5" Height="60" Width="80" Content="Задание
4"/>
        <Button Click="b5_Click" Name="b5" Margin="5" Height="60" Width="80" Content="Задание
5"/>
        <Button Click="b6_Click" Name="b6" Margin="5" Height="60" Width="80" Content="Задание
6"/>
    </StackPanel>
    <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"/>
</Grid>
</Window>

```

Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;

```

```

using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;
using WpfApp6;

namespace MyLab4
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        private object MyFrame;

        public MainWindow()
        {
            InitializeComponent();

            private void InitializeComponent()

            private void b1_Click(object sender, RoutedEventArgs e)
            {
                MyFrame.Navigate(new Page1());
            }

```

```

private void b2_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page2());
}

private void b3_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page3());
}

private void b4_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page4());
}

private void b6_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page6());
}

private void b5_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page5());
}
}
}

```

## Задание 1

### Листинг интерфейса

```

<Page x:Class="WpfApp6.Page1"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

```

```

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
xmlns:local="clr-namespace:WpfApp6"
mc:Ignorable="d"
d:DesignHeight="450" d:DesignWidth="800"
Title="Page1">

<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="60"/>
        <RowDefinition />
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>

    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 1"/>

    <TextBlock Margin="10" Grid.Row="1" Text="N" FontSize="30" VerticalAlignment="Center"/>

    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>
</Page>

```

Листинг программы

```
using System;
```

```
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;
```

```
namespace WpfApp6
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page1.xaml
```

```
    /// </summary>
```

```
    public partial class Page1 : Page
```

```
    {
```

```
        public Page1()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Button_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            int k = int.Parse(AA.Text);
```

```
            switch (k % 7)
```



```
{
    case 1:
        MessageBox.Show($" Понедельник", "ответ");
        break;
    case 2:
        MessageBox.Show($" Вторник", "ответ");
        break;
    case 3:
        MessageBox.Show($" Среда", "ответ");
        break;
    case 4:
        MessageBox.Show($" Четверг", "ответ");
        break;
    case 5:
        MessageBox.Show($" Пятница", "ответ");
        break;
    case 6:
        MessageBox.Show($" Суббота", "ответ");
        break;
    case 0:
    case 7:
        MessageBox.Show($" Воскресенье", "ответ");
        break;
    default:
        MessageBox.Show($"Ошибка ", "ответ");
        break;
}
}
}
}
```

## Задание 2

### Листинг интерфейса

```
<Page x:Class="WpfApp6.Page2"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp6"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page2">

    <Grid>
        <Grid.RowDefinitions>
            <RowDefinition Height="60"/>
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
        </Grid.RowDefinitions>
        <Grid.ColumnDefinitions>
            <ColumnDefinition Width="100"/>
            <ColumnDefinition />
        </Grid.ColumnDefinitions>

        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 2"/>

        <TextBlock Margin="10" Grid.Row="1" Text="N" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
        <TextBlock Margin="10" Grid.Row="2" Text="M" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" />
```

```
<Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
```

```
</Grid>
```

```
</Page>
```

Листинг программы

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp6
{
    /// <summary>
    /// Логика взаимодействия для Page2.xaml
    /// </summary>
    public partial class Page2 : Page
    {
        public Page2()
        {

```

```

        InitializeComponent();
    }

    private void Button_Click(object sender, RoutedEventArgs e)
    {
        int N = int.Parse(AA.Text);
        int M = int.Parse(BB.Text);
        string s = "";
        switch (N)
        {
            case 6: s += "шестерка"; break;
            case 7: s += "семерка"; break;
            case 8: s += "восьмерка"; break;
            case 9: s += "девятка"; break;
            case 10: s += "десятка"; break;
            case 11: s += "валет"; break;
            case 12: s += "дама"; break;
            case 13: s += "король"; break;
            case 14: s += "түз"; break;
        }
        switch (M)
        {
            case 1: s += " пики"; break;
            case 2: s += " треф"; break;
            case 3: s += " бубн"; break;
            case 4: s += " черв"; break;
        }
        MessageBox.Show(s);
    }
}

```

### Задание 3

#### Листинг интерфейса

```
<Page x:Class="WpfApp6.Page3"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp6"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page3">

    <Grid>

        <Grid.RowDefinitions>
            <RowDefinition Height="60"/>
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
            <RowDefinition />
        </Grid.RowDefinitions>

        <Grid.ColumnDefinitions>
            <ColumnDefinition Width="100"/>
            <ColumnDefinition />
        </Grid.ColumnDefinitions>

        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
            Grid.ColumnSpan="2" Text="Задание 3"/>

        <TextBlock Margin="10" Grid.Row="1" Text="X" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
        <TextBlock Margin="10" Grid.Row="2" Text="N" FontSize="30" VerticalAlignment="Center"/>
        <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" />
```

```
<Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

</Grid>

</Page>
```

Листинг программы

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp6
{
    /// <summary>
    /// Логика взаимодействия для Page3.xaml
    /// </summary>
    public partial class Page3 : Page
    {
        public Page3()
        {
            InitializeComponent();
        }
    }
}
```

```
}
```

```
private void Button_Click(object sender, RoutedEventArgs e)
```

```
{
```

```
    double x = double.Parse(AA.Text);
```

```
    int n = int.Parse(BB.Text);
```

```
    double R, D, L, S;
```

```
    double P = 3.14;
```

```
    switch (n)
```

```
    {
```

```
        case 1:
```

```
        {
```

```
            R = x;
```

```
            D = 2 * R;
```

```
            L = 2 * P * R;
```

```
            S = P * Math.Pow(R, 2);
```

```
            MessageBox.Show($" D ={D} L={L} S={S}", "ответ");
```

```
            break;
```

```
        }
```

```
        case 2:
```

```
        {
```

```
            D = x;
```

```
            R = D / 2;
```

```
            L = 2 * P * R;
```

```
            S = P * Math.Pow(R, 2);
```

```
            MessageBox.Show($" S ={S} R={R} L={L}", "ответ");
```

```
            break;
```

```
        }
```

```
        case 3:
```

```
        {
```

```
            L = x;
```

```

        R = L / 2 / P;

        D = 2 * R;

        S = P * Math.Pow(R, 2);

        MessageBox.Show($" R ={R} S={S} D={D}", "ответ");

        break;
    }
case 4:
    {
        S = x;

        R = Math.Sqrt(S / P);

        D = 2 * R;

        L = 2 * P * R;

        MessageBox.Show($" R ={R} D={D} L={L}", "ответ");

        break;
    }
}
}
}
}
}
}

```

#### Задание 4

##### Листинг интерфейса

```

<Page x:Class="WpfApp6.Page4"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp6"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page4">

```



```

<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="60"/>
        <RowDefinition />
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>
    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 4"/>
    <TextBlock Margin="10" Grid.Row="1" Text="A" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
    <TextBlock Margin="10" Grid.Row="2" Text="B" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="BB" FontSize="25" Margin="10" Grid.Row="2" Grid.Column="1" />
    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
</Grid>
</Page>

```

Листинг программы

```

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

```

```
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;
```

```
namespace WpfApp6
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page4.xaml
```

```
    /// </summary>
```

```
    public partial class Page4 : Page
```

```
    {
```

```
        public Page4()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Button_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            int A = int.Parse(AA.Text);
```

```
            int B = int.Parse(BB.Text);
```

```
            while (A >= B)
```

```
            {
```

```
                int result = A;
```

```
                A = A - B;
```

```
            }
```

```
            MessageBox.Show($" {A}", "ответ");
```

```
    }  
  }  
}
```

## Задание 5

### Листинг интерфейса

```
<Page x:Class="WpfApp6.Page5"  
      xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"  
      xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"  
      xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"  
      xmlns:d="http://schemas.microsoft.com/expression/blend/2008"  
      xmlns:local="clr-namespace:WpfApp6"  
      mc:Ignorable="d"  
      d:DesignHeight="450" d:DesignWidth="800"  
      Title="Page5">
```

```
<Grid>  
  <Grid.RowDefinitions>  
    <RowDefinition Height="60"/>  
    <RowDefinition />  
    <RowDefinition/>  
    <RowDefinition/>  
    <RowDefinition/>  
    <RowDefinition/>  
  </Grid.RowDefinitions>  
  <Grid.ColumnDefinitions>  
    <ColumnDefinition Width="100"/>  
    <ColumnDefinition/>  
  </Grid.ColumnDefinitions>
```

```

        <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 5"/>

        <TextBlock Margin="10" Grid.Row="1" Text="P" FontSize="30" VerticalAlignment="Center"/>

        <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />

        <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>

    </Grid>
</Page>

```

Листинг программы

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

namespace WpfApp6
{
    /// <summary>
    /// Логика взаимодействия для Page5.xaml
    /// </summary>
    public partial class Page5 : Page
    {

```

```

public Page5()
{
    InitializeComponent();
}

private void Button_Click(object sender, RoutedEventArgs e)
{
    double P = double.Parse(AA.Text);
    double deposit = 1000;
    int months = 0;
    while (deposit <= 1100)
    {
        deposit += deposit * (P / 100);
        months++;
    }
    MessageBox.Show($" deposit={deposit} months={months}", "ответ");
}
}
}

```

## Задание 6

### Листинг интерфейса

```

<Page x:Class="WpfApp6.Page6"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:local="clr-namespace:WpfApp6"
    mc:Ignorable="d"
    d:DesignHeight="450" d:DesignWidth="800"
    Title="Page6">

```

```

<Grid>
    <Grid.RowDefinitions>
        <RowDefinition Height="60"/>
        <RowDefinition />
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
        <RowDefinition/>
    </Grid.RowDefinitions>
    <Grid.ColumnDefinitions>
        <ColumnDefinition Width="100"/>
        <ColumnDefinition/>
    </Grid.ColumnDefinitions>
    <TextBlock FontSize="50" HorizontalAlignment="Center" VerticalAlignment="Center"
Grid.ColumnSpan="2" Text="Задание 6"/>
    <TextBlock Margin="10" Grid.Row="1" Text="К" FontSize="30" VerticalAlignment="Center"/>
    <TextBox x:Name="AA" FontSize="25" Margin="10" Grid.Row="1" Grid.Column="1" />
    <Button Click="Button_Click" Content="Найти" FontSize="30" Grid.Row="5" Height="50"
Width="100" Grid.ColumnSpan="2"/>
</Grid>
</Page>

```

Листинг программы

```

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

```

```
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;
```

```
namespace WpfApp6
```

```
{
```

```
    /// <summary>
```

```
    /// Логика взаимодействия для Page6.xaml
```

```
    /// </summary>
```

```
    public partial class Page6 : Page
```

```
    {
```

```
        public Page6()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        private void Button_Click(object sender, RoutedEventArgs e)
```

```
        {
```

```
            int k = int.Parse(AA.Text);
```

```
            string s = "";
```

```
            while (k > 0)
```

```
            {
```

```
                int last = k % 10;
```

```
                k = k / 10;
```

```
                s += $"{last}";
```

```

    }
    MessageBox.Show(s);

    }
}
}

```

### 8.12.23

#### Main page

#### Листинг интерфейса

```

<Window x:Class="WpfApp7.MainWindow"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:local="clr-namespace:WpfApp7"
    mc:Ignorable="d"
    Title="MainWindow" Height="450" Width="800">
    <Grid>
        <Grid.RowDefinitions>
            <RowDefinition Height="80"/>
            <RowDefinition/>
        </Grid.RowDefinitions>
        <StackPanel Orientation="Horizontal">
            <Button Click="b1_Click" Name="b1" Margin="5" Height="60" Width="80"
Content="Задание 1"/>
            <Button Click="b2_Click" Name="b2" Margin="5" Height="60" Width="80"
Content="Задание 2"/>
            <Button Click="b3_Click" Name="b3" Margin="5" Height="60" Width="80"
Content="Задание 3"/>

```



```

        <Button Click="b4_Click" Name="b4" Margin="5" Height="60" Width="80"
Content="Задание 4"/>
    </StackPanel>
    <Frame x:Name="MyFrame" Grid.Row="1" NavigationUIVisibility="Hidden"/>
</Grid>
</Window>

```

#### Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp7
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {

```

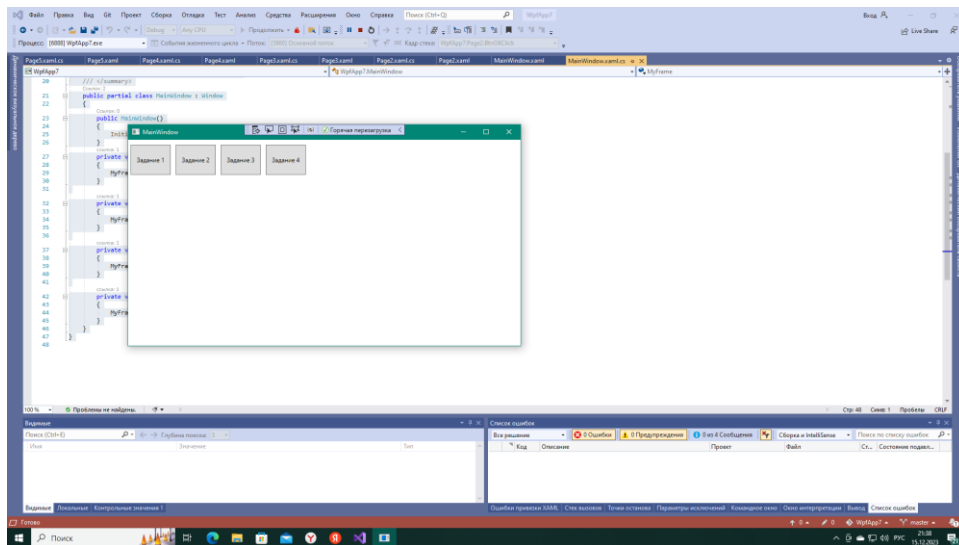
```
public MainWindow()
{
    InitializeComponent();
}

private void b1_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page2());
}

private void b2_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page3());
}

private void b3_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page4());
}

private void b4_Click(object sender, RoutedEventArgs e)
{
    MyFrame.Navigate(new Page5());
}
}
```



## Задание 1

### Листинг интерфейса

<Page x:Class="WpfApp7.Page2"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:WpfApp7"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800"

Title="Page2">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition Width="120"/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<Grid.RowDefinitions>

<RowDefinition Height="30"/>

<RowDefinition Height="30"/>

```

        <RowDefinition Height="150"/>
        <RowDefinition/>
        <RowDefinition Height="30"/>
    </Grid.RowDefinitions>
    <TextBlock Text="Пример 1"
Grid.Row="0"
Grid.Column="1"
HorizontalAlignment="Center"
VerticalAlignment="Center" Height="18" Margin="2,6,116,6" Width="56"/>
        <TextBlock Text="Данные"
Grid.Row="1"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Center"
Margin="10,6,0,6" Height="18" Width="45" />
        <TextBlock Text="Входные данные"
Grid.Row="2"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Top"
Margin="10,10,0,0" Height="17" Width="98" />
        <TextBlock x:Name="TextBlockAnswer"
Text="Ответ: "
Grid.Row="3"

Grid.Column="0"
Grid.ColumnSpan="2"
HorizontalAlignment="Stretch"
VerticalAlignment="Stretch"
Margin="10" />

```

```

        <TextBox x:Name="TbNumber"
Grid.Row="1"
Grid.Column="1"
HorizontalAlignment="Left"
VerticalContentAlignment="Center"
Padding="10 0" Width="382"
BorderThickness="2" />

        <Button x:Name="BtnAdd" Content="Добавить" Grid.Row="1"
Grid.Column="1" Margin="382,3,8,0"
Background="#FF3985B0"
Foreground="White"
Click="BtnAdd_Click" Height="24" VerticalAlignment="Top" />

        <ListBox x:Name="ListBoxData"
Grid.Row="2"
Grid.Column="1"
ScrollViewer.VerticalScrollBarVisibility="Visible"
Padding="10 0"
BorderThickness="1" />

        <StackPanel Grid.Row="4"
Grid.Column="0"
Grid.ColumnSpan="2"
Orientation="Horizontal"
HorizontalAlignment="Center" Margin="61,0" Width="172" >

            <Button x:Name="BtnOK" Content="OK"
Width="80" Height="24" Margin="3"
Background="#FF3985B0"
Foreground="White" IsDefault="True"
Click="BtnOKClick" />

            <Button x:Name="BtnCancel" Content="Cancel"
Width="80" Height="24" Margin="3"

```

```
Background="#FF3985B0"
Foreground="White" IsCancel="True"
Click="BtnCancelClick" />
    </StackPanel>
</Grid>
</Page>
```

#### Листинг программы

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp7
{
    /// <summary>
    /// Логика взаимодействия для Page2.xaml
    /// </summary>
    public partial class Page2 : Page
    {
```

```

public Page2()
{
    InitializeComponent();
}

private void BtnAdd_Click(object sender, RoutedEventArgs e)
{
    if ((String.IsNullOrEmpty(TbNumber.Text)))
    {
        return;
    }
    try
    {
        int xa = Convert.ToInt32(TbNumber.Text);
    }
    catch (FormatException)
    {
        MessageBox.Show("Введены не корректные данные");
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
    ListBoxData.Items.Add(TbNumber.Text);
}

private void BtnOKClick(object sender, RoutedEventArgs e)
{
    int n = Convert.ToInt32(ListBoxData.Items[0]); int s = 0;
    for (int i = 1; i <= n; i++)

```

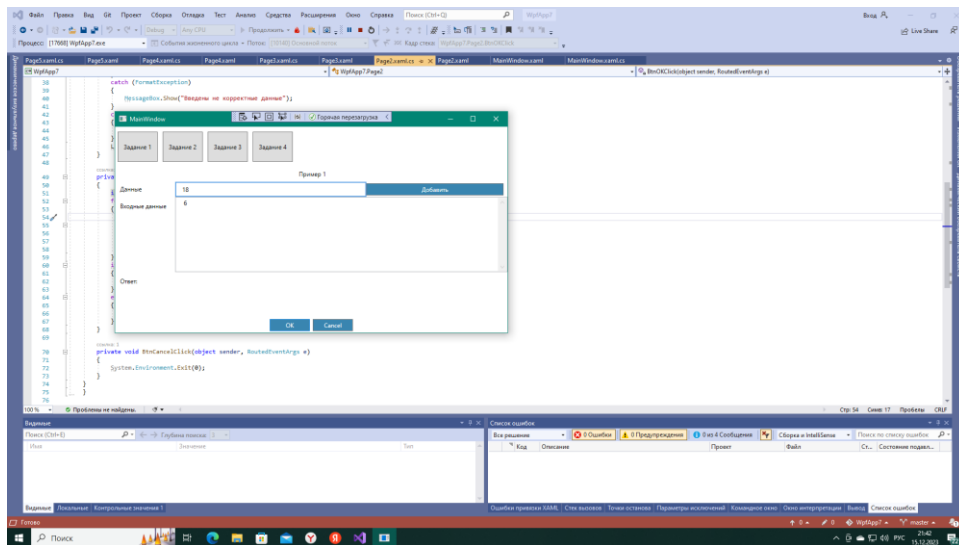
```

{
    int m = Convert.ToInt32(ListBoxData.Items[i]);
    if (m % 7 == 0 && m % 10 == 2)
    {
        s += m;
    }
}
if (s > 0)
{
    TextBlockAnswer.Text = $"ответ:\n{s}";
}
else
{
    TextBlockAnswer.Text = $"ответ:\n чисел оканчивающихся на 4 и
кратных 3 нету";
}
}

private void BtnCancelClick(object sender, RoutedEventArgs e)
{
    System.Environment.Exit(0);
}
}
}

```





## Задание 2

### Листинг интерфейса

<Page x:Class="WpfApp7.Page3"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:WpfApp7"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800"

Title="Page3">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition Width="120"/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<Grid.RowDefinitions>

<RowDefinition Height="30"/>

<RowDefinition Height="30"/>

```

        <RowDefinition Height="150"/>
        <RowDefinition/>
        <RowDefinition Height="30"/>
    </Grid.RowDefinitions>
    <TextBlock Text="Пример 1"
Grid.Row="0"
Grid.Column="1"
HorizontalAlignment="Center"
VerticalAlignment="Center" Height="18" Margin="2,6,116,6" Width="56"/>
        <TextBlock Text="Данные"
Grid.Row="1"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Center"
Margin="10,6,0,6" Height="18" Width="45" />
        <TextBlock Text="Входные данные"
Grid.Row="2"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Top"
Margin="10,10,0,0" Height="17" Width="98" />
        <TextBlock x:Name="TextBlockAnswer"
Text="Ответ: "
Grid.Row="3"

Grid.Column="0"
Grid.ColumnSpan="2"
HorizontalAlignment="Stretch"
VerticalAlignment="Stretch"
Margin="10" />

```

```

        <TextBox x:Name="TbNumber"
Grid.Row="1"
Grid.Column="1"
HorizontalAlignment="Left"
VerticalContentAlignment="Center"
Padding="10 0" Width="382"
BorderThickness="2" />

        <Button x:Name="BtnAdd" Content="Добавить" Grid.Row="1"
Grid.Column="1" Margin="382,3,8,0"
Background="#FF3985B0"
Foreground="White"
Click="BtnAdd_Click" Height="24" VerticalAlignment="Top" />

        <ListBox x:Name="ListBoxData"
Grid.Row="2"
Grid.Column="1"
ScrollViewer.VerticalScrollBarVisibility="Visible"
Padding="10 0"
BorderThickness="1" />

        <StackPanel Grid.Row="4"
Grid.Column="0"
Grid.ColumnSpan="2"
Orientation="Horizontal"
HorizontalAlignment="Center" Margin="61,0" Width="172" >

            <Button x:Name="BtnOK" Content="OK"
Width="80" Height="24" Margin="3"
Background="#FF3985B0"
Foreground="White" IsDefault="True"
Click="BtnOKClick" />

            <Button x:Name="BtnCancel" Content="Cancel"
Width="80" Height="24" Margin="3"

```

```
Background="#FF3985B0"
Foreground="White" IsCancel="True"
Click="BtnCancelClick" />
    </StackPanel>
</Grid>
</Page>
```

#### Листинг программы

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp7
{
    /// <summary>
    /// Логика взаимодействия для Page3.xaml
    /// </summary>
    public partial class Page3 : Page
    {
```

```

public Page3()
{
    InitializeComponent();
}

private void BtnAdd_Click(object sender, RoutedEventArgs e)
{
    if ((String.IsNullOrEmpty(TbNumber.Text)))
    {
        return;
    }
    try
    {
        int xa = Convert.ToInt32(TbNumber.Text);
    }
    catch (FormatException)
    {
        MessageBox.Show("Введены не корректные данные");
    }
    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
    ListBoxData.Items.Add(TbNumber.Text);
}

private void BtnOKClick(object sender, RoutedEventArgs e)
{
    int n = Convert.ToInt32(ListBoxData.Items[0]); int s = 0;
    for (int i = 1; i <= n; i++)

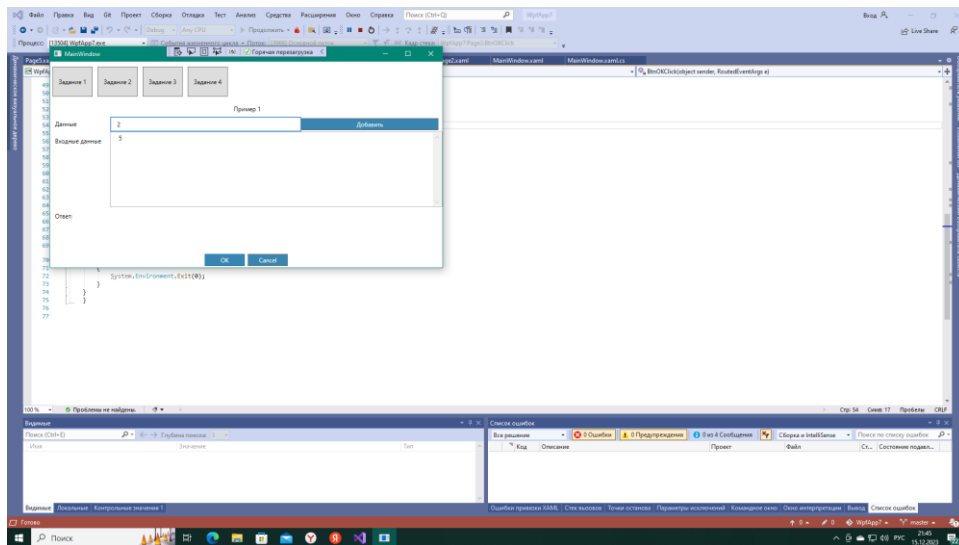
```

```

{
    int m = Convert.ToInt32(ListBoxData.Items[i]);
    if (m % 6 == 0 && m % 10 == 4)
    {
        s += m;
    }
}
if (s > 0)
{
    TextBlockAnswer.Text = $"ответ:\n{s}";
}
else
{
    TextBlockAnswer.Text = $"ответ:\n чисел оканчивающихся на 4 и
кратных 3 нету";
}
}

private void BtnCancelClick(object sender, RoutedEventArgs e)
{
    System.Environment.Exit(0);
}
}
}

```



## Задание 3

### Листинг интерфейса

<Page x:Class="WpfApp7.Page4"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:WpfApp7"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800"

Title="Page4">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition Width="120"/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<Grid.RowDefinitions>

<RowDefinition Height="30"/>

<RowDefinition Height="30"/>

```

        <RowDefinition Height="150"/>
        <RowDefinition/>
        <RowDefinition Height="30"/>
    </Grid.RowDefinitions>
    <TextBlock Text="Пример 1"
Grid.Row="0"
Grid.Column="1"
HorizontalAlignment="Center"
VerticalAlignment="Center" Height="18" Margin="2,6,116,6" Width="56"/>
        <TextBlock Text="Данные"
Grid.Row="1"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Center"
Margin="10,6,0,6" Height="18" Width="45" />
        <TextBlock Text="Входные данные"
Grid.Row="2"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Top"
Margin="10,10,0,0" Height="17" Width="98" />
        <TextBlock x:Name="TextBlockAnswer"
Text="Ответ: "
Grid.Row="3"

Grid.Column="0"
Grid.ColumnSpan="2"
HorizontalAlignment="Stretch"
VerticalAlignment="Stretch"
Margin="10" />

```



```

        <TextBox x:Name="TbNumber"
Grid.Row="1"
Grid.Column="1"
HorizontalAlignment="Left"
VerticalContentAlignment="Center"
Padding="10 0" Width="382"
BorderThickness="2" />

        <Button x:Name="BtnAdd" Content="Добавить" Grid.Row="1"
Grid.Column="1" Margin="382,3,8,0"
Background="#FF3985B0"
Foreground="White"
Click="BtnAdd_Click" Height="24" VerticalAlignment="Top" />

        <ListBox x:Name="ListBoxData"
Grid.Row="2"
Grid.Column="1"
ScrollViewer.VerticalScrollBarVisibility="Visible"
Padding="10 0"
BorderThickness="1" />

        <StackPanel Grid.Row="4"
Grid.Column="0"
Grid.ColumnSpan="2"
Orientation="Horizontal"
HorizontalAlignment="Center" Margin="61,0" Width="172" >

            <Button x:Name="BtnOK" Content="OK"
Width="80" Height="24" Margin="3"
Background="#FF3985B0"
Foreground="White" IsDefault="True"
Click="BtnOKClick" />

            <Button x:Name="BtnCancel" Content="Cancel"
Width="80" Height="24" Margin="3"

```

```
Background="#FF3985B0"
Foreground="White" IsCancel="True"
Click="BtnCancelClick" />
    </StackPanel>
</Grid>
</Page>
```

#### Листинг программы

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp7
{
    /// <summary>
    /// Логика взаимодействия для Page4.xaml
    /// </summary>
    public partial class Page4 : Page
```

```

{
    public Page4()
    {
        InitializeComponent();
    }

    private void BtnAdd_Click(object sender, RoutedEventArgs e)
    {
        if ((String.IsNullOrEmpty(TbNumber.Text)))
        {
            return;
        }
        try
        {
            int xa = Convert.ToInt32(TbNumber.Text);
        }
        catch (FormatException)
        {
            MessageBox.Show("Введены не корректные данные");
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }
        ListBoxData.Items.Add(TbNumber.Text);
    }

    private void BtnOKClick(object sender, RoutedEventArgs e)
    {

```

```
int A = Convert.ToInt32(ListBoxData.Items[0]); int B =  
Convert.ToInt32(ListBoxData.Items[1]);
```

```
double s = 0;
```

```
for (int i = A; i <= B; i++)
```

```
{
```

```
    s += Math.Pow(i, 2);
```

```
}
```

```
if (s > 0)
```

```
{
```

```
    MessageBox.Show($"ответ:\n {s}");
```

```
}
```

```
else
```

```
{
```

```
    MessageBox.Show($"ответ:\n No");
```

```
}
```

```
}
```

```
private void BtnCancelClick(object sender, RoutedEventArgs e)
```

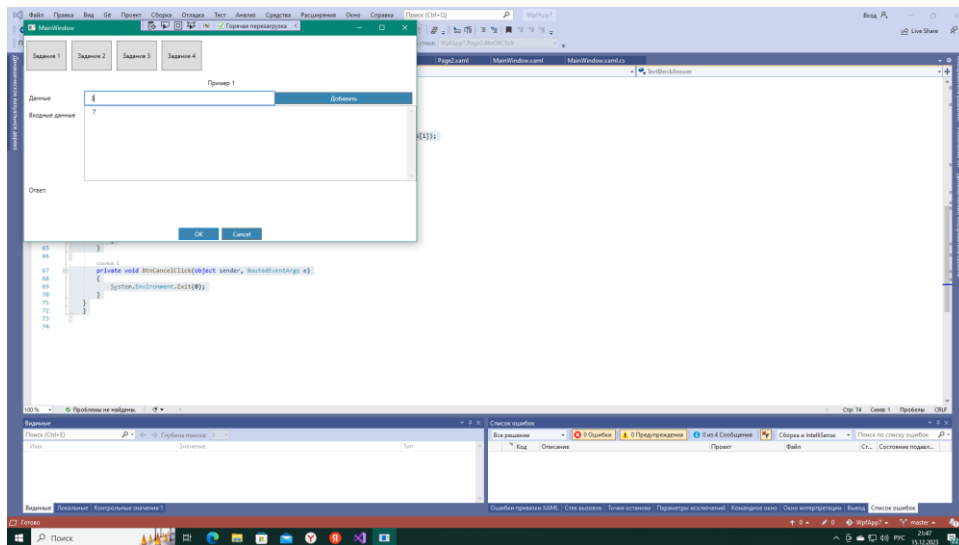
```
{
```

```
    System.Environment.Exit(0);
```

```
}
```

```
}
```

```
}
```



## Задание 4

### Листинг интерфейса

<Page x:Class="WpfApp7.Page5"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:WpfApp7"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800"

Title="Page5">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition Width="120"/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<Grid.RowDefinitions>

<RowDefinition Height="30"/>

<RowDefinition Height="30"/>

```

        <RowDefinition Height="150"/>
        <RowDefinition/>
        <RowDefinition Height="30"/>
    </Grid.RowDefinitions>
    <TextBlock Text="Пример 1"
Grid.Row="0"
Grid.Column="1"
HorizontalAlignment="Center"
VerticalAlignment="Center" Height="18" Margin="2,6,116,6" Width="56"/>
        <TextBlock Text="Данные"
Grid.Row="1"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Center"
Margin="10,6,0,6" Height="18" Width="45" />
        <TextBlock Text="Входные данные"
Grid.Row="2"
Grid.Column="0"
HorizontalAlignment="Left"
VerticalAlignment="Top"
Margin="10,10,0,0" Height="17" Width="98" />
        <TextBlock x:Name="TextBlockAnswer"
Text="Ответ: "
Grid.Row="3"

Grid.Column="0"
Grid.ColumnSpan="2"
HorizontalAlignment="Stretch"
VerticalAlignment="Stretch"
Margin="10" />

```

```

        <TextBox x:Name="TbNumber"
Grid.Row="1"
Grid.Column="1"
HorizontalAlignment="Left"
VerticalContentAlignment="Center"
Padding="10 0" Width="382"
BorderThickness="2" />

        <Button x:Name="BtnAdd" Content="Добавить" Grid.Row="1"
Grid.Column="1" Margin="382,3,8,0"
Background="#FF3985B0"
Foreground="White"
Click="BtnAdd_Click" Height="24" VerticalAlignment="Top" />

        <ListBox x:Name="ListBoxData"
Grid.Row="2"
Grid.Column="1"
ScrollViewer.VerticalScrollBarVisibility="Visible"
Padding="10 0"
BorderThickness="1" />

        <StackPanel Grid.Row="4"
Grid.Column="0"
Grid.ColumnSpan="2"
Orientation="Horizontal"
HorizontalAlignment="Center" Margin="61,0" Width="172" >

            <Button x:Name="BtnOK" Content="OK"
Width="80" Height="24" Margin="3"
Background="#FF3985B0"
Foreground="White" IsDefault="True"
Click="BtnOKClick" />

            <Button x:Name="BtnCancel" Content="Cancel"
Width="80" Height="24" Margin="3"

```

```

Background="#FF3985B0"
Foreground="White" IsCancel="True"
Click="BtnCancelClick" />
    </StackPanel>
</Grid>
</Page>

```

## Листинг программы

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
using System.Windows.Controls;
using System.Windows.Data;
using System.Windows.Documents;
using System.Windows.Input;
using System.Windows.Media;
using System.Windows.Media.Imaging;
using System.Windows.Navigation;
using System.Windows.Shapes;

namespace WpfApp7
{
    /// <summary>
    /// Логика взаимодействия для Page5.xaml
    /// </summary>
    public partial class Page5 : Page

```



```

{
    public Page5()
    {
        InitializeComponent();
    }

    private void BtnAdd_Click(object sender, RoutedEventArgs e)
    {
        if ((String.IsNullOrEmpty(TbNumber.Text)))
        {
            return;
        }
        try
        {
            int xa = Convert.ToInt32(TbNumber.Text);
        }
        catch (FormatException)
        {
            MessageBox.Show("Введены не корректные данные");
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }
        ListBoxData.Items.Add(TbNumber.Text);
    }

    private void BtnOKClick(object sender, RoutedEventArgs e)
    {
        int N = Convert.ToInt32(ListBoxData.Items[0]);
    }
}

```

```
double s = 0;
double A = 1;
for (int i = 1; i <= N; i++)
{
    s += A * i;
    A = A * i;
}
if (s > 0)
{
    MessageBox.Show($"ответ:\n {s}");
}
else
{
    MessageBox.Show($"ответ:\n No");
}
}
```

```
private void BtnCancelClick(object sender, RoutedEventArgs e)
{
    System.Environment.Exit(0);
}
}
```

