

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

namespace Prime
{
    public partial class primeForm : Form
    {
        public primeForm()
        {
            InitializeComponent();

            private void label1_Click(object sender, EventArgs e)
            {

            }

            private void numericUpDown1_ValueChanged(object sender, EventArgs e)
            {
                if (High.Value <= Low.Value) {
                    High.Value = Low.Value + 1;
                };
            }

            private void numericUpDown2_ValueChanged(object sender, EventArgs e)
            {
                if (Low.Value >= High.Value)
                {
                    Low.Value = High.Value - 1;
                };
            }

            private void primeButton_Click(object sender, EventArgs e)
            {
                int highVal, lowVal, numerator, denominator, remainder;

                highVal = Convert.ToInt32(High.Value);
                lowVal = Convert.ToInt32(Low.Value);

                // Seed the result string
                string sResult = "";

                //
                // Loop through all the values from HIGH to LOW and determine the prime numbers.
                //
                for (int curValue = highVal; curValue >= lowVal && curValue > 0; curValue--)
                {
                    // seed the result string with the current Value
                    sResult = sResult + curValue.ToString();

                    numerator = curValue;
                    denominator = 2;

                    //
                    // Resolve the PRIME numbers from the current value.
                    //
                    while (denominator <= numerator && denominator < curValue)
```

```
{
    remainder = numerator % denominator;
    if (remainder == 0)
    {
        sResult = sResult + ":" + denominator.ToString();
        numerator = numerator / denominator;
        denominator = 2;

    }
    else
    {
        denominator++;
    }

};

//
// write out the Prime as a result.
//
sResult = sResult + "\r\n";
}

//
// write the results out to the screen.
//
resultTextBox.Text = sResult;
}
}
```