

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Drawing.Drawing2D;

namespace Практика_2
{
    public partial class Form1 : Form
    {
        private bool dragging = false;
        private Point dragCursorPoint;
        private Point dragFormPoint;
        public Form1()
        {
            InitializeComponent();
            this.ClientSize = new Size(400, 400);
            this.Text = "Фиолетовая звезда";
            SetFormToStar();
            this.Paint += new PaintEventHandler(MainForm_Paint);

            Button button = new Button();
            button.Text = "Открыть форму 2";
            button.Location = new Point(150, 150);
            button.Click += (sender, e) =>
            {
                Form2 form2 = new Form2();
                form2.Show();
            };
            this.Controls.Add(button);

            this.MouseDown += new MouseEventHandler(Form1_MouseDown);
            this.MouseMove += new MouseEventHandler(Form1_MouseMove);
            this.MouseUp += new MouseEventHandler(Form1_MouseUp);
        }

        private void SetFormToStar()
        {
            GraphicsPath path = new GraphicsPath();

```

```

        Point[] points = GetStarPoints(5, 200, 100);
        path.AddPolygon(points);
        this.Region = new Region(path);
    }

    private Point[] GetStarPoints(int num_points, float outer_radius, float
inner_radius)
    {
        double angle = Math.PI / num_points;
        List<Point> points = new List<Point>();

        for (int i = 0; i < 2 * num_points; i++)
        {
            float radius = (i % 2 == 0) ? outer_radius : inner_radius;
            float x = (float)(200 + radius * Math.Cos(i * angle - Math.PI / 2));
            float y = (float)(200 + radius * Math.Sin(i * angle - Math.PI / 2));
            points.Add(new Point((int)x, (int)y));
        }

        return points.ToArray();
    }

    private void MainForm_Paint(object sender, PaintEventArgs e)
    {
        Graphics g = e.Graphics;
        Brush brush = Brushes.Violet;
        g.FillRegion(brush, this.Region);
    }

    private void Form1_MouseDown(object sender, MouseEventArgs e)
    {
        if (e.Button == MouseButtons.Left)
        {
            dragging = true;
            dragCursorPoint = Cursor.Position;
            dragFormPoint = this.Location;
        }
    }

    private void Form1_MouseMove(object sender, MouseEventArgs e)
    {
        if (dragging)
        {
            Point dif = Point.Subtract(Cursor.Position, new
Size(dragCursorPoint));
            Size(dragFormPoint));

```

```

        this.Location = Point.Add(dragFormPoint, new Size(dif));
    }
}

private void Form1_MouseUp(object sender, MouseEventArgs e)
{
    if (e.Button == MouseButtons.Left)
    {
        dragging = false;
    }
}

private void Form1_Load(object sender, EventArgs e)
{
}
}
}

```

```

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 Практика_2
{

```

```

    public partial class Form2 : Form
    {
        public Form2()
        {
            InitializeComponent();
            Button openButton = new Button();
            openButton.Text = "Открыть форму 1";
            openButton.Location = new Point(100, 150);

```

```
        openButton.Click += OpenButton_Click;

        this.Controls.Add(openButton);
    }

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