**Practice "Vector"**

Create a new project in Visual Studio. Select Class Library as the project type.

In this project, create two classes, Vector and Geometry, in the GeometryTasks namespace.

The Vector class must have two public fields, X and Y, of type double.

The Geometry class must have two static methods: GetLength, which returns the length of the passed vector, and Add, which returns the sum of the two vectors passed.

Place both classes in one file. Actually, this is usually not worth doing, but it is more convenient for our automatic verification of the task.

// Paste the final content of the VectorTask.cs file here

**Code:**

**Contents of the Program.cs file:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using GeometryTasks;

namespace GeometryTasks

{

class Program

{

public static Vector

v1 = new Vector { X = 3.2, Y = 8.5 },

v2 = new Vector { X = 5.1, Y = 3.4 },

VSum = new Vector { X = 0, Y = 0 };

public static void Main(string[] args)

{

Console.WriteLine(Geometry.GetLength(v1));

Geometry.Add(v1, v2);

Console.WriteLine("Result vector х={0} y={1}", Geometry.VSum.X, Geometry.VSum.Y);

Console.ReadKey();

}

}

}

**Contents of the VectorTask.cs file:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace GeometryTasks

{

public class Vector

{

public double X;

public double Y;

}

public static class Geometry

{

public static Vector

V1 = new Vector { X = 3.2, Y = 8.5 },

V2 = new Vector { X = 5.1, Y = 3.4 },

VSum = new Vector { X = 0, Y = 0 };

public static double DlinaV, S;

public static double GetLength(Vector v1)

{

S = v1.X \* v1.X + v1.Y \* v1.Y;

if (S > 0)

{

return DlinaV = Math.Sqrt(S);

}

else return 0;

}

public static Vector Add(Vector v1, Vector v2)

{

VSum.X = v1.X + v2.X;

VSum.Y = v1.Y + v2.Y;

return VSum;

}

}

}