using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApplication1

{

public class Vector

{

public double x;

public double y;

public Vector(double x, double y)

{

this.x = x;

this.y = y;

}

public Vector(double value, Vector direction)

{

double k = value / direction.Length;

this.x = k \* direction.x;

this.y = k \* direction.y;

}

public static Vector operator +(Vector v, int p)

{

return new Vector(v.x + p, v.y + p);

}

public static Vector operator -(Vector v1, Vector v2)

{

return new Vector(v1.x - v2.x, v1.y - v2.y);

}

public static bool operator ==(Vector v1, Vector v2)

{

if (v1.x != v2.x && v1.y != v2.y)

return true;

else

return false;

}

public static bool operator !=(Vector v1, Vector v2)

{

if (v1.x != v2.x && v1.y != v2.y)

return true;

else

return false;

}

public static Vector operator \*(double k, Vector v)

{

return new Vector(v.x \* k, v.y \* k);

}

public static Vector operator +(double k, Vector v)

{

return new Vector(v.x + k, v.y + k);

}

public double Length

{

get

{

return Math.Sqrt(x \* x + y \* y);

}

}

public static Vector Zero

{

get { return new Vector(0, 0); }

}

public void print()

{

Console.WriteLine("X={0}, Y={1}", x, y);

}

public double test(Vector[] ass, int n)

{

return ass[n].x;

}

public int test(Vector[] ass, double n)

{

int foo = Convert.ToInt32(ass[(int)Math.Round(n)].y);

return foo;

}

}

class Program

{

static void Main(string[] args)

{

Vector v1 = new Vector(14, 3);

Vector v2 = new Vector(11, 5);

Vector[] nnn = new Vector[3];

Random rand = new Random();

for (int i = 0; i < 3; i++)

{

int x = rand.Next(10);

int y = rand.Next(7);

nnn[i] = new Vector(x, y);

Console.WriteLine("x {0}, y {1} - i{2} ", nnn[i].x, nnn[i].y, i);

}

v1.print();

v2.print();

v1 -= v2;

v1.print();

v2 += 12;

v2.print();

if (v1 != v2)

Console.WriteLine("!=");

else

Console.WriteLine("=");

Console.WriteLine("Ответ {0}", v1.test(nnn, 2));

Console.WriteLine("Ответ {0}", v2.test(nnn, 1.45));

Console.ReadKey();

}

}

}