COCI '07 Contest 3 #4 Dejavu

Time limit: 0.6s **Memory limit:** 32M

N points are placed in the coordinate plane.

Write a program that calculates how many ways we can choose three points so that they form a **right** triangle with **legs** parallel to the coordinate axes.

A right triangle has one 90-degree internal angle. The legs of a right triangle are its two shorter sides.

Input Specification

The first line of input contains the integer N $(3 \leq N \leq 100\,000)$, the number of points. Each of the following N lines contains two integers X and Y $(1 \leq X, Y \leq 100\,000)$, the coordinates of one point.

No pair of points will share the same pair of coordinates.

Output Specification

Output the number of triangles.

Scoring

In 40% of all test cases, N will be less than 100.

In 70% of all test cases, N will be less than $10\,000$.

Sample Input 1

```
3
4 2
2 1
1 3
```

Sample Output 1

```
0
```

Sample Input 2

```
5
1 2
2 1
2 2
2 3
3 2
```

Sample Output 2

```
4
```

Sample Input 3

```
6
10 10
20 10
10 20
20 20
30 20
30 30
```

Sample Output 3

```
8
```