

IOI Training Camp 2017 Practice Test 2

Sereja And Squares

Sereja has painted n distinct points on the plane. The coordinates of each point are integers. Now he is wondering: how many squares are there with sides parallel to the coordinate axes and with all its four vertexes painted? Help him calculate this number.

Input

The first line contains integer n .

Each of the next n lines contains two integers x_i, y_i , the integers which represent the coordinates of the i -th point. It is guaranteed that all the given points are distinct.

Output

In a single line print the required number of squares.

General Constraints

Unless otherwise mentioned, the following constraints are met throughout all subtasks:

- $1 \leq n \leq 10^5$
- $0 \leq x_i, y_i \leq 10^5$

Subtasks

Subtask 1 (10 Points):

- $1 \leq n \leq 50$

Subtask 2 (10 Points):

- $1 \leq n \leq 200$

Subtask 2 (10 Points):

- $1 \leq n \leq 1000$

Subtask 3 (70 Points):

- Original constraints.

Sample Input 1

```
5
0 0
0 2
2 0
2 2
1 1
```

Sample Output 1

1

Sample Input 2

9
0 0
1 1
2 2
0 1
1 0
0 2
2 0
1 2
2 1

Sample Output 2

5

Limits

Time: 2 seconds

Memory: 256 MB