Points and Lines

Problem Code: **POLIN**

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Given N points of the form (x_i, y_i) on a 2-D plane.

From each point, you draw 2 lines one horizontal and one vertical. Now some of the lines may overlap each other, therefore you are required to print the number of **distinct** lines you can see on the plane.

Note:

- Two horizontal lines are distinct if they pass through different y coordinates.
- Two vertical lines are distinct if they pass through different x coordinates.

Input Format

- First line will contain T, number of testcases. Then the testcases follow.
- Each testcase contains a single integer N, the number of points.
- The next N lines contain two space separated integers x_i, y_i, the coordinate of the i^{th} point.

Output Format

For each testcase, output in a single line the number of **distinct** lines that can be seen on the plane.

Constraints

- $1 \leq T \leq 1000$
- $1 \leq N \leq 10^5$
- $0 \leq X_i, Y_i \leq 10^9$
- Sum of N over all test cases is atmost 10^5.

Sample Input 1

```
3
4
1 1
1 0
0 1
0 0
5
0 0
0 1
0 2
0 3
0 4
1
10 10
```

Sample Output 1

```
4
6
2
```

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See Discussions

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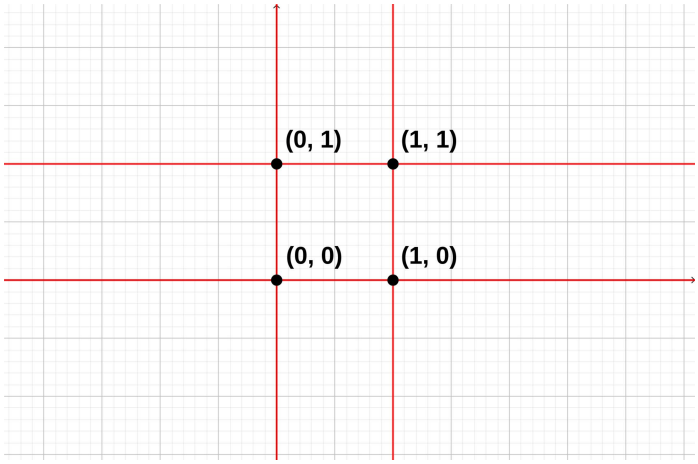
Explanation

Test Case 1**:** There are 2 horizontal lines passing through $Y = 0$ and $Y = 1$, and 2 vertical lines passing through $X = 0$ and $X = 1$.



Test Case 2**:** There are 5 horizontal lines passing through $Y = 0, Y = 1, Y = 2, Y = 3$ and $Y = 4$ and 1 vertical line passing through $X = 0$.

Test Case 3**:** There is 1 horizontal line passing through $Y = 10$ and 1 vertical line passing through $X = 10$.

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Editorial:	https://discuss.codechef.com/problems/POLIN (https://discuss.codechef.com/problems/POLIN)
Tags:	Tags are hidden. Show temporarily Update this setting in edit profile (/users/hariprakash_s/edit#additional_info)
Problem level:	Simple
Date Added:	7-02-2022
Time Limit:	1 secs
Source Limit:	50000 Bytes
Languages:	CPP17, PYTH 3.6, JAVA, C, CPP14, PYTH, PYP3, CS2, ADA, PYPY, TEXT, PAS fpc, NODEJS, RUBY, PHP, GO, HASK, TCL, kotlin, PERL, SCALA, LUA, BASH, JS, rust, LISP sbcl, PAS gpc, BF, CLOJ, R, D, CAML, swift, FORT, ASM, FS, WSPC, LISP clisp, SQL, SCM guile, PERL6, ERL, CLPS, PRLG, SQLQ, ICK, NICE, ICON, COB, SCM chicken, PIKE, SCM qobi, ST, NEM

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