Fortune Cake

Description

A fortune cookie is a crisp cookie usually made from flour, sugar, vanilla, and sesame seed oil with a piece of paper, a "fortune", on which is an aphorism, or a vague prophecy.

Base on fortune cookie, Shik designs a new product which named **fortune cake**! There are many fortune cookies on the cake with distinct center locations (x_i, y_i). Shik will cut the cake with a straight line without passing any center location of fortune cookies. The cake splits into two pieces. Each piece will contain non-empty cookies because Shik is powerful! Then Shik will eat the piece which contains the cookie with index of 1. Now Shik wants to ask you how many different sets of fortune cookies he can eat?

Input

The first line contains an integer T indicating the total number of test cases. Each test case starts with one line containing a integer n. Then n lines with two integers x_i, y_i.

- $1 \leq T \leq 250$
- $2 \leq n \leq 1000$
- $-10^5 \leq x_i, y_i \leq 10^5$
- There are at most 5 test cases with $n > 100$.

Output

For each test case, please output the answer in one line.

Sample Input

```
2
3
1 1
2 2
3 3
4
0 0
0 1
1 1
1 0
```

Sample Output

```
2
6
```