code jam
hello, world!

Round 1C 2010

- Submissions

Rope Intranet

9pt	Not attempted **2989/3075 users** correct (97%)
13pt	Not attempted **2662/2973 users** correct (90%)

Load Testing

14pt	Not attempted **1060/1468 users** correct (72%)
22pt	Not attempted **829/1020 users** correct (81%)

Making Chess Boards

18pt	Not attempted **640/836 users** correct (77%)
24pt	Not attempted **226/547 users** correct (41%)

- Top Scores

ZhukovDmitry	100
darnley	100
aytawgf	100
xdliutao	100
Onufry	100
Clann	100
SergeiFedorov	100
kubus	100
K.A.D.R	100
Murphy	100

Problem A. Rope Intranet

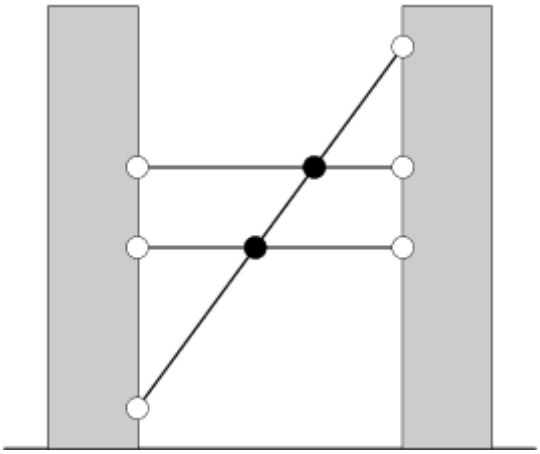
This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the Quick-Start Guide to get started.

Small input 9 points	Solve A-small
Large input 13 points	Solve A-large

Problem

A company is located in two very tall buildings. The company intranet connecting the buildings consists of many wires, each connecting a window on the first building to a window on the second building.

You are looking at those buildings from the side, so that one of the buildings is to the left and one is to the right. The windows on the left building are seen as points on its right wall, and the windows on the right building are seen as points on its left wall. Wires are straight segments connecting a window on the left building to a window on the right building.



You've noticed that no two wires share an endpoint (in other words, there's at most one wire going out of each window). However, from your viewpoint, some of the wires intersect midway. You've also noticed that exactly two wires meet at each intersection point.

On the above picture, the intersection points are the black circles, while the windows are the white circles.

How many intersection points do you see?

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each case begins with a line containing an integer **N**, denoting the number of wires you see.

The next **N** lines each describe one wire with two integers $\mathbf{A_i}$ and $\mathbf{B_i}$. These describe the windows that this wire connects: $\mathbf{A_i}$ is the height of the window on the left building, and $\mathbf{B_i}$ is the height of the window on the right building.

Output

For each test case, output one line containing "Case #x: y", where x is the case number (starting from 1) and y is the number of intersection points you see.

Limits

$1 \le \mathbf{T} \le 15$.
$1 \le \mathbf{A_i} \le 10^4$.
$1 \le \mathbf{B_i} \le 10^4$.
Within each test case, all $\mathbf{A_i}$ are different.
Within each test case, all $\mathbf{B_i}$ are different.
No three wires intersect at the same point.

Small dataset

$1 \le \mathbf{N} \le 2$.

Large dataset

$1 \le \mathbf{N} \le 1000$.

Sample

Input	Output
2 3 1 10 5 5 7 7 2 1 1 2 2	Case #1: 2 Case #2: 0