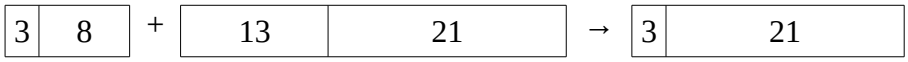
2179 – Magic Sticks Again

Source : http://acm.tju.edu.cn/toj/showp2179.html

Someone gives you some magic sticks. Each magic stick has two different numbers carved on it, one on each end. If one stick (a) has a_1,a_2 ($a_1 < a_2$), and another stick (b) has b_1,b_2 ($b_1 < b_2$), $a_2 \le b_1$, then the two sticks can be connected into a new stick, with a_1,b_2 carved on its two ends.



What is the minimum number of sticks after the connection?

Input

The first line contains the number of test cases, T.

Each test cases starts with an integer N ($N \le 20000$) on a line, indicating the number of given sticks. Each of the following N lines contains two integers p and q ($0 \le p < q \le 10^8$), denoting the two number carved on a stick.

Output

A line for each of the T test cases, containing the minimum number of sticks after the connections.

Example

Input:

```
3
4
1 5
3 8
5 21
13 34
3
1 15
5 18
8 12
5
1 2
2 3
3 5
5 6
7 8
```

Output:

```
2
3
1
```