Minimum Records

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

VegiCat has n closed integer intervals $[l_1, r_1], [l_2, r_2], \ldots, [l_n, r_n]$.

He wants to construct a sequence $a_1, a_2, \ldots, a_n$ by choosing an integer a_i from each interval $[l_i, r_i]$. That is, $l_i \le a_i \le r_i$ for every $1 \le i \le n$.

A position i is called a **record position** if $a_i > a_j$ for every $1 \le j < i$. In particular, position 1 is always a record position.

Help VegiCat minimize the number of record positions. Output this minimum number.

Input

The first line contains an integer T ($1 \le T \le 10^4$), the number of test cases. The description of the test cases follows.

The first line of each test case contains an integer n ($1 \le n \le 10^6$), the number of intervals.

The i-th of the next n lines contains two integers l_i, r_i ($-10^9 \le l_i \le r_i \le 10^9$), describing the interval available at position i.

It is guaranteed that the sum of n over all test cases does not exceed 10^6.

Output

For each test case, output an integer — the minimum possible number of record positions.

Example

standard input	standard output
2 4 1 1 1 100 20 20 30 30 8 -3 -1 -5 4 0 1 2 2 1 8 5 6 10 12 12 12	2 4

Note

In the first test case, one optimal sequence is $a = [1, 100, 20, 30]$. Its record positions are 1 and 2.

In the second test case, one optimal sequence is $a = [-1, 4, 1, 2, 8, 6, 12, 12]$. Its record positions are 1, 2, 5, and 7. Position 8 is not a record because its value equals the maximum seen so far.