

Problem D. Clique

Input file: *standard input*
Output file: *standard output*
Time limit: 25 seconds
Memory limit: 512 mebibytes

Consider a circle divided into 10^6 arcs numbered clockwise from 1 to 10^6 . Moreover, there are n segments on the circle, each spanning a connected interval of arcs.

Find the size of the largest set of segments such that every two share at least one common arc.

Input

The first line of input contains the number of test cases z . The descriptions of the test cases follow.

The first line of each test case contains the number of segments n ($1 \leq n \leq 3000$). The following n lines contain two integers l_i and r_i ($1 \leq l_i, r_i \leq 10^6$) – the first and last arc of the i -th segment if we traverse the circle clockwise. No segment contains the entire circle, and no two segments coincide.

The sum of n over all test cases does not exceed 24000.

Output

For each test case, output a single line containing a single integer – the size of the largest set of segments such that every two of them intersect.

Example

standard input	standard output
1	3
4	
1 4	
4 5	
5 2	
3 3	