Friendship Restaurant

Samiul and Ansary are best friends . They start catering business together after their graduation . They named their restaurant as Friendship Restaurant an ironic symbol of trust , respect and love between friends . But as a start up they have limited amount of money . Even they need to borrow tables everyday from Abir's store house . Ansary has an imaginary fairy girlfriend who comes every night and tells him the arrival and leaving time of tomorrow's customers . Customers don't like to share a table with others. If there is no empty table when they arrive , they immediately leave the restaurant and may not come here again . So Samiul and Ansary must ensure a minimum number of tables are present in the restaurant so that at least one table is available for him/her on his/her arrival time .The same table can be used for non overlapping customers . Can you help them to ensure the minimum number of tables for tomorrow's customer.

Input

Input starts with an integer T (T <= 30) denoting the number of test cases . Each case starts with a line containing an integer n (n <= 40) denoting number of customers . Each of the next n lines containing two integers Ai and Li (1 <= Ai < Li <= 1000) denoting arrival time and leaving time of every customer .

Output

For each case, print the case number and the minimum number of table needs for tomorrow .

2 2 1 3 3 5 4 1 10 10 20 11 21 3 5	Case 1: 2 Case 2: 2