## Wooden Sticks

## English

 VietnameseThere is a pile of $n$ wooden sticks. The length and weight of each stick are known in advance. The sticks are to be processed by a woodworking machine in one by one fashion. It needs some time, called setup time, for the machine to prepare processing a stick. The setup times are associated with cleaning operations and changing tools and shapes in the machine. The setup times of the woodworking machine are given as follows:
(a) The setup time for the first wooden stick is 1 minute.
(b) Right after processing a stick of length I and weight $w$, the machine will need no setup time for a stick of length l' and weight w' if I $\leq \mathrm{l}$ ' and $\mathrm{w} \leq \mathrm{w}$ '. Otherwise, it will need 1 minute for setup.

You are to find the minimum setup time to process a given pile of $n$ wooden sticks.
For example, if you have five sticks whose pairs of length and weight are (9, 4), (2, 5), (1, 2), (5, 3 ), and $(4,1)$, then the minimum setup time should be 2 minutes since there is a sequence of pairs $(4,1),(5,3),(9,4),(1,2),(2,5)$.

## Input

The input consists of $T$ test cases. The number of test cases $(T)$ is given in the first line of the input file. Each test case consists of two lines: The first line has an integer $n, 1<=n<=5000$, that represents the number of wooden sticks in the test case, and the second line contains $2 n$ positive integers I1, w1, I2, w2 ... In, wn, each of magnitude at most 10000, where li and wi are the length and weight of the $i$ th wooden stick, respectively. The $2 n$ integers are delimited by one or more spaces.

## Output

The output should contain the minimum setup time in minutes, one per line.

## Example

## Input:

3
5
4952213514
3
221122
3
132231
Output:

