**Wooden Sticks**

**Time Limit: 2000/1000 MS (Java/Others)    Memory Limit: 65536/32768 K (Java/Others)  
Total Submission(s): 13118    Accepted Submission(s): 5402**

**Problem Description**

There 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 l and weight w , the machine will need no setup time for a stick of length l' and weight w' if l<=l' and w<=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 (4,9), (5,2), (2,1), (3,5), and (1,4), then the minimum setup time should be 2 minutes since there is a sequence of pairs (1,4), (3,5), (4,9), (2,1), (5,2).

**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 n 2 positive integers l1, w1, l2, w2, ..., ln, wn, each of magnitude at most 10000 , where li and wi are the length and weight of the i th wooden stick, respectively. The 2n integers are delimited by one or more spaces.

**Output**

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

**Sample Input**

3

5

4 9 5 2 2 1 3 5 1 4

3

2 2 1 1 2 2

3

1 3 2 2 3 1

**Sample Output**

2

1

3

**Source**

[Asia 2001, Taejon (South Korea)](http://acm.hdu.edu.cn/search.php?field=problem&key=Asia+2001%2C+Taejon+%28South+Korea%29&source=1&searchmode=source)

**Recommend**

We have carefully selected several similar problems for you:  [1789](http://acm.hdu.edu.cn/showproblem.php?pid=1789) [1257](http://acm.hdu.edu.cn/showproblem.php?pid=1257) [1800](http://acm.hdu.edu.cn/showproblem.php?pid=1800) [3177](http://acm.hdu.edu.cn/showproblem.php?pid=3177) [1055](http://acm.hdu.edu.cn/showproblem.php?pid=1055)