Setting the video P40128_en

Professor Oak is a great fan of *Takeshi's castle*. So much, that he has bought a satellite antenna to watch the show in several European channels. Professor Oak has a guide of all the channels of Europe, and wants to set his video to record as many episodes as possible. But it is not easy: The video only can record a channel at a time. Moreover, the episodes can have different lengths (depending on how they are edited, the advertiments, etc).

Can you help professor Oak? Write a program that, given the beginning time and end time of the broadcast of all the episodes of *Takeshi's castle* in all the european channels during several days, computes the maximum number of episodes that can be recorded every day.

Input

Input consists of several cases. Each case has a natural number $1 \leq n \leq 10^5$ followed by n pairs $(i_1, f_1), \ldots, (i_n, f_n)$ of natural numbers that indicate the beginning time and the end time, *both of them included*, of each episode of a day. For any j between 1 and n, assume $0 \leq i_j \leq f_j \leq 10^9$.

Output

For each case of the input, print a line with the maximum number of complete episodes that professor Oak will be able to record that day.

Sample input 1

```
3   100 200  500 780  1000 1040

7   400 1100  500 600  900 1400
200 300  1200 1300  100 700  800 1000

3   0 100  100 1439  0 1439

2   1234 1234  1234 1234
```

Sample output 1

```
3
4
1
1
```

Problem information

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