Social Master - I

Time: 1 sec / Memory: 256 MB

Problem Statement

There are n events you can attend.
For each event s, you know its starting date $a(s)$ and its ending date $b(s)$.

You cannot attend more than one event in each day. Furthermore, once you attend an event, you will stay in that event until it ends.

What is the maximum number of events you can attend?

Input

The first input line contains an integer n: the number of events.

After this, there are n lines. Each line has two integers a and b: the starting date and the ending date.

Output

Print one integer: the maximum number of events you can attend.

Constraints

$1 \le n \le 2 \cdot 10^5$
$1 \le a \le b \le 10^9$

Example

Input:

```
3
3 4
4 9
5 8
```

Output:

2