Budgie Shots

Input File: *shotin.txt*
Output File: *shotout.txt*

Time and Memory Limits: 1 second, 8 MB

There are N budgies down in your garden each day,
who eat seeds from the ground and sit up on the wall.
You would like to use your shiny camera to
take some colourful photographs (*shots*) of them all.

You have watched the birds closely and know them quite well.
You know each of the budgies can only be seen
at a certain fixed interval every day
when that budgie emerges, all feathered and green.

You can photograph multiple budgies at once
and/or one budgie multiple times, if that's best.
If a budgie flies in or out right when you shoot
you will capture it still (so please don't feel too stressed!).

Now, you want to shoot every bird at least once,
but your film is expensive – try keeping costs low!
Finding out the least number of shots you must take
is your task in this part of the AIIO.

Input

The first line of input will contain the single integer N ($1 \le N \le 100\,000$), the number of budgies. The following N lines will describe the times when each budgie is visible (and hence able to be photographed). The ith of these lines will contain two integers a_i and b_i, describing the time (in minutes past sunrise) when the ith budgie flies in and out of view, respectively. You are guaranteed that $0 \le a_i < b_i \le 2\,000\,000\,000$.

Output

Output should consist of a single integer: the minimum number of shots required to photograph every budgie at least once.

Sample Input 1

```
5
0 2
2 4
5 7
6 9
8 10
```

Sample Output 1

```
3
```

Sample Input 2

```
2
60 240
```

```
13 37
```

Sample Output 2

2

Explanation

In the first example, you require at least three photos to capture all the budgies. Here is one way:

- Take a photo at time $t = 2$ minutes, capturing budgies 1 and 2.

- Take a photo at time $t = 6$ minutes, capturing budgies 3 and 4.

- Take a photo at time $t = 9$ minutes, capturing budgies 4 and 5.

In the second example, the budgies appear at completely different times. You have no choice but to take a new photo for each budgie.

Scoring

The score for each input scenario will be 100% if the correct answer is written to the output file, and 0% otherwise.