Can you pass?

To pass this semester, you have n final exams to take. For each exam i:

- The official scheduled date is a_i.
- However, you can take the exam early on day b_i, where $b_i < a_i$.

No matter when you take the exam (either on a_i or b_i), the acad's office will always record a_i as exam date on your IMS. Now, you want these exam dates to appear in a `non-decreasing` order in your grade book.

Additionally,

- You can pass any exam on first try.
- You can take multiple exams on the same day, in any order you wish.

Your task is to determine the earliest possible day on which you can complete your last exam, while keeping the recorded dates in a `non-decreasing` order.

Input Format

1. The first line contains an integer n($1 \le n \le 10^6$).
2. Each of the next $n$lines contains two integers a_i and b_i ($1 \le b_i < a_i \le 10^9$)

Output Format

The minimum possible day on which you can take the last of his n exams.

Helper Code

You may use the following snippet for sorting an array of integers.

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```
int comp(const void *a, const void *b) {
    int arg1 = *(int *)a;
    int arg2 = *(int *)b;
    if (arg1 < arg2) return -1;
    if (arg1 > arg2) return 1;
    return 0;
}

void sort_arr(int arr[], int n) {
    qsort(arr, n, sizeof(int), comp);
}
```

Submit solution

My submissions
All submissions
Best submissions

Points: 100 (partial)
Time limit: 0.5s
Memory limit: 256M

Allowed languages
C

Sample Input 1:

```
3
5 2
3 1
4 2
```

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Sample Output 1:

```
2
```

Copy

Sample Input 2:

```
3
6 1
5 2
4 3
```

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Sample Output 2:

```
6
```

Copy

In the first sample you first take an exam in the second subject on the first day (the teacher writes down the schedule date that is 3). On the next day you take an exam in the third subject (the teacher writes down the schedule date, 4), then you takes an exam in the first subject (the teacher writes down the mark with date 5). Thus, you take the last exam on the day 2 and the dates will go in the non-decreasing order: 3, 4, 5.

In the second sample you first take an exam in the third subject on the fourth day. Then he takes an exam in the second subject on the fifth day. After that on the sixth day you take an exam in the first subject. Thus, the last day is day 6.

Clarifications

Report an issue

No clarifications have been made at this time.