

Busy Days



The marketing team at Booking.com wants to identify our partners' busiest days – the dates with the maximum number of reservations per property. Once they know which dates are most popular with guests, the marketing team can use this information to acquire more rooms on these high demand dates. Can you help?

There's one property per test case, each with a list of reservation check-in and check-out dates (all stays are inclusive). We need you to find the date with the most reservations at each property.

Input Format

The first line of each test file contains the number of test cases t .

For each test case, the first line contains the number of reservations n .

n lines follow, each contain two space separated dates *checkin_date*, *checkout_date* in the *YYYY-MM-DD* format.

Constraints

- $1 \leq n \leq 10^5$
- $2018-09-01 \leq \text{checkin_date} \leq \text{checkout_date} \leq 2020-12-31$

Output Format

For each test case, print the date with most reservations in the *YYYY-MM-DD* format in a new line. If multiple dates have the same number of reservations, return the earliest one.

Sample Input 0

```
1
3
2018-01-01 2018-01-03
2018-01-02 2018-01-05
2018-01-03 2018-01-06
```

Sample Output 0

```
2018-01-03
```

Explanation 0

It is clear from the input that among the 3 reservations made, 2018-01-03 had the maximum number of reservations.