Inspection

Introduction

The General frowned, looking at his calendar. He knew that the inspections in military units – stationing in critical sites of the galaxy – may be carried out only by him and Colonel Kretschmer. Visiting all the sites would not be feasible, but still the commander has an ambitious plan to handle inspections in the greatest possible number of units.

Inspection

The inspection in the unit may be carried out only in a strictly specified time, when all the soldiers are on duty. This time is defined by two natural numbers x_b and x_e. To execute the inspection one must be present from the beginning of the x_b-*th* beetleminute to the beginning of x_e-*th* beetleminute of the present day. Either the General or the Colonel must be present at the premises throughout the time of the inspection. Each of them is able – thanks to the Almost Stable Galactic Portals – to relocate himself as far as to the other end of the galaxy, even immediately after the inspection is over.

Problem

Help the General Beattle evaluate how many units he can inspect today, sharing his duties with Colonel Kretschmer.

Input data

Test data are given in `insp*.in` files.

The first line of the test contains one natural number T, denoting the number of tests. The description of each test consists of a number N of all military units meant for inspection. In the following N lines there are two integer numbers x_b and x_e, denoting the beginning and the end of the time of inspection in a given unit.

$$1 \leqslant T \leqslant 10$$
$$1 \leqslant N \leqslant 10^6$$
$$-10^9 \leqslant x_b < x_e \leqslant 10^9$$

Output data

The output data should contain T numbers, one in each line, denoting the greatest number of units which may be inspected on a given day.

Example

For the input data:

```
3
1
1 2
3
1 5
2 6
2 4
5
1 5
2 6
2 4
4 8
6 7
```

The correct answer is:

```
1
2
4
```

Explaining the example

- We select unit 1
- We select e.g., units 1 and 2
- We select e.g., units $1, 3, 4$, and 5

Score

If the answer is correct, then the score for a given set equals 1. Otherwise the score is 0.