

Problem FIREFIGHT: Firefighting

Metropolis has a new villain called Pyra, a ferocious red-haired woman with pyrokinesis – the ability to spark a fire with the power of her mind. Her ultimate goal is, of course, to take over the world. As a first step she plans to frighten the world’s population by burning down Metropolis. Over the last days, Superman had a hard job putting out all the fires started by Pyra and her gang. But today Louis Lane, a good friend of Superman who has good connections to the underworld of Metropolis, managed to get Pyra’s fire-plan for tomorrow. Hence, Superman knows in advance where and at what time a fire will be inflamed. Since fires that are sparked at gas stations, schools, or hospitals need to be handled faster than fires at garbage dumps or warehouses, Superman established a time limit for each future fire within he has to extinguish it. Superman will not try to put out a fire after its time limit because he knows that it will have caused too much damage anyway.

The fires always start at integral time steps and the time limits are also integral. It takes Superman exactly one time unit to put out a fire, regardless of how big the fire is or how long it has already been burning. Superman is able to fly faster than light; if he has put out a fire at time step X , he can put out the next fire at an arbitrary distant location at time step $X + 1$. Help Superman determine the maximum number of fires he can put out.

Input

The input starts with a line containing C , the number of testcases ($1 \leq C \leq 10$). The description of each of the C testcases starts with a line containing N ($1 \leq N \leq 75,000$), the number of fires. Then follow exactly N lines, each contains two integer numbers A and B such that $0 \leq A \leq B < 2^{30}$. This means that Superman can put out this fire at any integral time step X such that $A \leq X \leq B$.

Output

Output one line per testcase that contains the maximum number of fires Superman can put out.

Sample Input 1

```
3
2
1 1
1 1
2
2 2
1 2
8
10 12
10 12
1000000002 1000000004
1000000004 1000000004
1000000001 1000000004
1000000003 1000000004
10 12
10 12
```

Sample Output 1

```
1
2
7
```