

15

The green internet café

9 points

Introduction

You want to open an internet café where users can book in advance how many hours they want to use your computers. Your shop will be environmental friendly and you want to make sure you only switch on the computers that are required for the day.

A reservation consists of an arrival and a departure time (note that users can only book entire hours, no minutes are provided). Note that if a customer arrives at the same time another one leaves, they are not considered to be in the shop at the same time, for example, if a customer stays from 1 to 2 and another one from 2 to 3, only 1 computer is needed, since they do not stay at the same time.

Input

The first line of the input will be the amount of different customers for the day. The rest of the lines will be the arrival and departure hour for each customer.

Example 1

3
1 4
2 5
3 6

This means there will be 3 customers, the first one arriving at 1 and leaving at 4, the second one arriving at 2 and leaving at 5 and the third one arriving at 3 and leaving at 6.

Example 2

5
1 2
2 3
3 4
4 5
5 6

Example 3

7
13 19
6 18
5 6
8 9
2 9
10 11
12 15

Output

The number of required computers for each day.

Example 1

3

Example 2

1

Example 3

3