

11766 Racing Car Computer

The racing cars of today are equipped with so many sophisticated equipment. Introduction of a new visual transducer which is interfaced with the on-board computer can tell you on the fly how many cars are ahead of you while how many are trailing. There are N cars on a racing track. Each has an on-board computer with the new feature. During the race, every single car's computer keeps displaying two integers, a (The number of cars in front of him) & b (The number of cars behind him) for a particular moment. It is possible that at some time, some of the cars are racing side by side i.e. they are exactly at the same location. A car will not consider any other car at the same location to be a leading or trailing car.

Now, it is suspected that some of the new transducers are not working properly inside such high speed vehicles. The report with all computers' data generated at a particular timestamp is reported to you. You are to determine the minimum number of cars that have faulty data.

Input

Each test case begins with an integer N ($1 \leq N \leq 1000$), the number of cars on a track. The next N lines each has two integers — a & b ($0 \leq a, b \leq 1500$) for a particular car.

The last test case is followed by a line with a single '0' indicating the end of input.

Output

For each test case, print a line in the format, 'Case X : Y ', where X is the case number & Y is the minimum number of cars that must have faulty data according to the report.

Sample Input

```
4
2 2
0 0
0 2
3 1
1
1 1
0
```

Sample Output

```
Case 1: 3
Case 2: 1
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