

# Interval Challenge

Give you  $N$  ( $1 \leq N \leq 200000$ ) intervals, represented as  $[A, B]$ , for example, interval  $s$  represented as  $[A_s, B_s]$ .

For two intervals  $s$  and  $t$ , we say  $S$  covered by  $T$  if  $A_t \leq A_s$  and  $B_s \leq B_t$ . Now my problem is easy, just tell me the question below: For each interval, how many intervals can cover it but not covered by it?

## Input

The input contains multiple test cases.

For each test case, the first line is an integer  $N$  ( $1 \leq N \leq 200000$ ), which is the number of intervals. Then come  $N$  lines, the  $i$ -th of which contains two integers:  $A_i$  and  $B_i$  ( $A_i, B_i$  will not exceed the 32-bit integer) specifying the two parameters described above.

## Output

For each test case, output one line containing  $n$  space-separated integers, the  $i$ -th of which specifying the number of intervals that can cover it but not covered by it.

## Example

**Input:**

```
3
0 1
-1 2
-2 3
2
0 1
0 1
```

**Output:**

```
2 1 0
0 0
```