

D. Nested Segments

time limit per test: 2 seconds
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

You are given n segments on a line. There are no ends of some segments that coincide. For each segment find the number of segments it contains.

Input

The first line contains a single integer n ($1 \leq n \leq 2 \cdot 10^5$) — the number of segments on a line.

Each of the next n lines contains two integers l_i and r_i ($-10^9 \leq l_i < r_i \leq 10^9$) — the coordinates of the left and the right ends of the i -th segment. It is guaranteed that there are no ends of some segments that coincide.

Output

Print n lines. The j -th of them should contain the only integer a_j — the number of segments contained in the j -th segment.

Examples

input
4
1 8
2 3
4 7
5 6
output
3
0
1
0

input
3
3 4
1 5
2 6
output
0
1
1

Educational Codeforces Round 10

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Language: GNU G++11 5.1.0 ▼

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Submission	Time	Verdict
16944055	Mar/26/2016 08:25	Time limit exceeded on test 15
16942161	Mar/26/2016 04:35	Wrong answer on test 7
16931271	Mar/25/2016 17:59	Wrong answer on test 7
16930674	Mar/25/2016 17:50	Wrong answer on test 7
16930057	Mar/25/2016 17:40	Wrong answer on test 2

→ Problem tags

[data structures](#) [sortings](#)

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