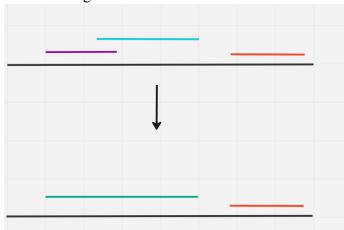
Showcase:

Input:

First line: integer value *num*.

Next "num" lines: integers a and b, forming the interval [a,b]

A list of merged intervals in sorted order.



Input	Output
9 45 51 1 2 2 3 5 9 6 12 7 11 19 23 23 25 30 31	1 3 5 12 19 25 30 31 45 51
3 2 7 2 0 6 10	Invalid interval