Find Building Where Alice and Bob Can Meet

You are given a **0-indexed** array heights of positive integers, where heights[i] represents the height of the ith building.

If a person is in building i, they can move to any other building j if and only if i < j and heights[i] < heights[j].

You are also given another array queries where queries[i] = [a_i, b_i]. On the ith query, Alice is in building a_i while Bob is in building b_i.

Return *an array* ans *where* ans[i] *is **the index of the leftmost building** where Alice and Bob can meet on the* ith *query. If Alice and Bob cannot move to a common building on query* i, *set* ans[i] *to -1.*

Example 1:

Input: heights = [6,4,8,5,2,7], queries = [[0,1],[0,3],[2,4],[3,4],[2,2]]

Output: [2,5,-1,5,2]

Explanation: In the first query, Alice and Bob can move to building 2 since heights[0] < heights[2] and heights[1] < heights[2].

In the second query, Alice and Bob can move to building 5 since heights[0] < heights[5] and heights[3] < heights[5].

In the third query, Alice cannot meet Bob since Alice cannot move to any other building.

In the fourth query, Alice and Bob can move to building 5 since heights[3] < heights[5] and heights[4] < heights[5].

In the fifth query, Alice and Bob are already in the same building.

For ans[i] != -1, It can be shown that ans[i] is the leftmost building where Alice and Bob can meet.

For ans[i] == -1, It can be shown that there is no building where Alice and Bob can meet.

Example 2:

Input: heights = [5,3,8,2,6,1,4,6], queries = [[0,7],[3,5],[5,2],[3,0],[1,6]]

Output: [7,6,-1,4,6]

Explanation: In the first query, Alice can directly move to Bob's building since heights[0] < heights[7].

In the second query, Alice and Bob can move to building 6 since heights[3] < heights[6] and heights[5] < heights[6].

In the third query, Alice cannot meet Bob since Bob cannot move to any other building.

In the fourth query, Alice and Bob can move to building 4 since heights[3] < heights[4] and heights[0] < heights[4].

In the fifth query, Alice can directly move to Bob's building since heights[1] < heights[6].

For ans[i] != -1, It can be shown that ans[i] is the leftmost building where Alice and Bob can meet.

For ans[i] == -1, It can be shown that there is no building where Alice and Bob can meet.

Constraints:

- $1 <= heights.length <= 5 * 10^4$
- $1 <= heights[i] <= 10^9$
- $1 <= queries.length <= 5 * 10^4$
- queries[i] = [a_i, b_i]
- $0 <= a_i, b_i <= heights.length - 1$