

1851. Minimum Interval to Include Each Query

Hard 🔖 Topics 🏢 Companies 💡 Hint

You are given a 2D integer array `intervals`, where `intervals[i] = [lefti, righti]` describes the i^{th} interval starting at `lefti` and ending at `righti`. Each `righti` is greater than `lefti`.

You are also given an integer array `queries`. The answer to the j^{th} query is the **size of the smallest interval** `i` such that `lefti <= queries[j] <= righti`.

Return *an array containing the answers to the queries*.

Example 1:

Input: `intervals = [[1,4],[2,4],[3,6],[4,4]]`, `queries = [2,3,4,5]`
Output: `[3,3,1,4]`
Explanation: The queries are processed as follows:
– Query = 2: The interval `[2,4]` is the smallest interval containing 2. The answer is `4 - 2 + 1 = 3`.
– Query = 3: The interval `[2,4]` is the smallest interval containing 3. The answer is `4 - 2 + 1 = 3`.
– Query = 4: The interval `[4,4]` is the smallest interval containing 4. The answer is `4 - 4 + 1 = 1`.
– Query = 5: The interval `[3,6]` is the smallest interval containing 5. The answer is `6 - 3 + 1 = 4`.

Example 2:

Input: `intervals = [[2,3],[2,5],[1,8],[20,25]]`, `queries = [2,19,5,22]`
Output: `[2,-1,4,6]`
Explanation: The queries are processed as follows:
– Query = 2: The interval `[2,3]` is the smallest interval containing 2. The answer is `3 - 2 + 1 = 2`.
– Query = 19: None of the intervals contain 19. The answer is `-1`.
– Query = 5: The interval `[2,5]` is the smallest interval containing 5. The answer is `5 - 2 + 1 = 4`.
– Query = 22: The interval `[20,25]` is the smallest interval containing 22. The answer is `25 - 20 + 1 = 6`.

Constraints:

- `1 <= intervals.length <= 105`
- `1 <= queries.length <= 105`
- `intervals[i].length == 2`
- `1 <= lefti <= righti <= 107`
- `1 <= queries[j] <= 107`

Seen this question in a real interview before? 1/4

Yes No

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 Hint 1

 Hint 2

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