

5790. Minimum Absolute Difference Queries

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The **minimum absolute difference** of an array `a` is defined as the **minimum value** of `|a[i] - a[j]|`, where `0 <= i < j < a.length` and `a[i] != a[j]`. If all elements of `a` are the **same**, the minimum absolute difference is `-1`.

- For example, the minimum absolute difference of the array `[5,2,3,7,2]` is `|2 - 3| = 1`. Note that it is not `0` because `a[i]` and `a[j]` must be different.

You are given an integer array `nums` and the array `queries` where `queries[i] = [li, ri]`. For each query `i`, compute the **minimum absolute difference** of the **subarray** `nums[li...ri]` containing the elements of `nums` between the **0-based** indices `li` and `ri` (**inclusive**).

Return an **array** `ans` where `ans[i]` is the answer to the *i*<sup>th</sup> query.

A **subarray** is a contiguous sequence of elements in an array.

The value of `|x|` is defined as:

- `x` if `x >= 0`.
- `-x` if `x < 0`.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

**Input:** `nums = [1,3,4,8]`, `queries = [[0,1],[1,2],[2,3],[0,3]]`  
**Output:** `[2,1,4,1]`  
**Explanation:** The queries are processed as follows:

- `queries[0] = [0,1]`: The subarray is `[1,3]` and the minimum absolute difference is `|1-3| = 2`.
- `queries[1] = [1,2]`: The subarray is `[3,4]` and the minimum absolute difference is `|3-4| = 1`.
- `queries[2] = [2,3]`: The subarray is `[4,8]` and the minimum absolute difference is `|4-8| = 4`.
- `queries[3] = [0,3]`: The subarray is `[1,3,4,8]` and the minimum absolute difference is `|3-4| = 1`.

Example 2:

**Input:** `nums = [4,5,2,2,7,10]`, `queries = [[2,3],[0,2],[0,5],[3,5]]`  
**Output:** `[-1,1,1,3]`  
**Explanation:** The queries are processed as follows:

- `queries[0] = [2,3]`: The subarray is `[2,2]` and the minimum absolute difference is `-1` because all the elements are the same.
- `queries[1] = [0,2]`: The subarray is `[4,5,2]` and the minimum absolute difference is `|4-5| = 1`.
- `queries[2] = [0,5]`: The subarray is `[4,5,2,2,7,10]` and the minimum absolute difference is `|4-5| = 1`.
- `queries[3] = [3,5]`: The subarray is `[2,7,10]` and the minimum absolute difference is `|7-10| = 3`.

Constraints:

- `2 <= nums.length <= 105`
- `1 <= nums[i] <= 100`
- `1 <= queries.length <= 2 * 104`
- `0 <= li < ri < nums.length`

JavaScript

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1 //\*\*


```
2 * @param {number[]} nums
3 * @param {number[][]} queries
4 * @return {number[]}
5 */
6 var minDifference = function(nums, queries) {
7
8 };
```

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