



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]| $a[j] \mid$, where $0 \le i \le j \le a$. 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] = $[l_i, r_i]$. For each query i, compute the **minimum absolute difference** of the **subarray** nums $[l_1...r_i]$ containing the elements of nums between the **0-based** indices l_i and r_i (inclusive).

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

Return an array ans where ans [i] is the answer to the i^{th} 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.

Example 1:

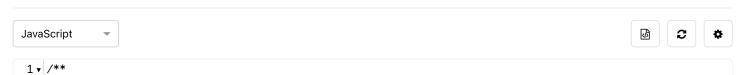
```
Input: nums = [1,3,4,8], queries = [[0,1],[1,2],[2,3],[0,3]]
Output: [2,1,4,1]
Explanation: The queries are processed as follows:
- queries [0] = [0,1]: The subarray is [1,3] and the minimum absolute difference is |1-3| = 2.
- queries[1] = [1,2]: The subarray is [3,4] and the minimum absolute difference 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 <= 2×10^4
- $0 \le l_i < r_i < nums.length$



```
2
       * @param {number[]} nums
  3
       * @param {number[][]} queries
       * @return {number[]}
  4
  5
  6 v | var minDifference = function(nums, queries) {
  7
  8
      };
☐ Custom Testcase
                       Use Example Testcases
                                                                                                                 Run
                                                                                                                            △ Submit
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```

https://leetcode.com/contest/weekly-contest-246/problems/minimum-absolute-difference-queries/problems/minimum