1630. Arithmetic Subarrays

Solved ●

Medium Topics Companies Hint

A sequence of numbers is called **arithmetic** if it consists of at least two elements, and the difference between every two consecutive elements is the same. More formally, a sequence `s` is arithmetic if and only if `s[i+1] - s[i] == s[1] - s[0]` for all valid `i`.

For example, these are **arithmetic** sequences:

> 1, 3, 5, 7, 9
> 7, 7, 7, 7
> 3, -1, -5, -9

The following sequence is not **arithmetic**:

> 1, 1, 2, 5, 7

You are given an array of `n` integers, `nums`, and two arrays of `m` integers each, `l` and `r`, representing the `m` range queries, where the i^{th} query is the range `[l[i], r[i]]`. All the arrays are **0-indexed**.

Return *a list of* `boolean` *elements* `answer`, *where* `answer[i]` *is* `true` *if the subarray* `nums[l[i]], nums[l[i]+1], ... , nums[r[i]]` *can be* ***rearranged*** *to form an* ***arithmetic*** *sequence, and* `false` *otherwise.*

Example 1:

> **Input:** nums = `[4,6,5,9,3,7]`, l = `[0,0,2]`, r = `[2,3,5]`
> **Output:** `[true,false,true]`
> **Explanation:**
> In the 0^{th} query, the subarray is [4,6,5]. This can be rearranged as [6,5,4], which is an arithmetic sequence.
> In the 1^{st} query, the subarray is [4,6,5,9]. This cannot be rearranged as an arithmetic sequence.
> In the 2^{nd} query, the subarray is `[5,9,3,7]. This` can be rearranged as `[3,5,7,9]`, which is an arithmetic sequence.

Example 2:

> **Input:** nums = [-12,-9,-3,-12,-6,15,20,-25,-20,-15,-10], l = [0,1,6,4,8,7], r = [4,4,9,7,9,10]
> **Output:** [false,true,false,false,true,true]

Constraints:

- `n == nums.length`
- `m == l.length`
- `m == r.length`
- `2 <= n <= 500`
- `1 <= m <= 500`
- `0 <= l[i] < r[i] < n`
- -10^5 `<= nums[i] <=` 10^5

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

Yes No

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Hint 2

Hint 3

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