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 ith 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 0th query, the subarray is [4,6,5]. This can be rearranged as [6,5,4], which is an arithmetic sequence.

In the 1st query, the subarray is [4,6,5,9]. This cannot be rearranged as an arithmetic sequence.

In the 2nd 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
* -105 <= nums[i] <= 105