# 3350. Adjacent Increasing Subarrays Detection II

Solved

Medium 🔊 Topics 📵 Companies 💡 Hint

Given an array nums of n integers, your task is to find the **maximum** value of k for which there exist **two** adjacent

subarrays of length k each, such that both subarrays are strictly increasing. Specifically, check if there are two subarrays of length k starting at indices a and b (a < b), where:

- Both subarrays nums[a..a + k 1] and nums[b..b + k 1] are **strictly increasing**.
- The subarrays must be **adjacent**, meaning b = a + k.

Return the **maximum** possible value of k.

A subarray is a contiguous non-empty sequence of elements within an array.

## Example 1:

**Input:** nums = [2,5,7,8,9,2,3,4,3,1]

# Output: 3

#### **Explanation:**

- The subarray starting at index 2 is [7, 8, 9], which is strictly increasing.
- The subarray starting at index 5 is [2, 3, 4], which is also strictly increasing.
- These two subarrays are adjacent, and 3 is the maximum possible value of k for which two such adjacent strictly increasing subarrays exist.

# Example 2:

**Input:** nums = [1,2,3,4,4,4,4,5,6,7]

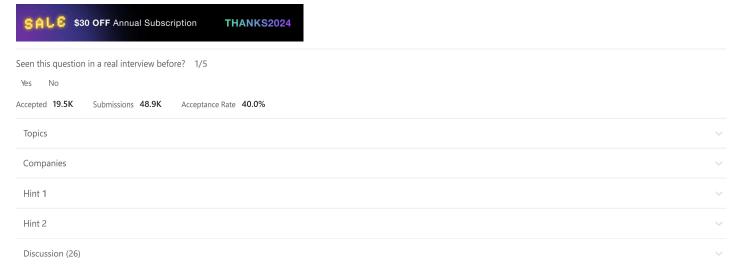
## Output: 2

# Explanation:

- The subarray starting at index 0 is [1, 2], which is strictly increasing.
- The subarray starting at index 2 is [3, 4], which is also strictly increasing.
- These two subarrays are adjacent, and 2 is the maximum possible value of k for which two such adjacent strictly increasing subarrays exist.

## Constraints:

- 2 <= nums.length <= 2 \* 10<sup>5</sup>
- -10<sup>9</sup> <= nums[i] <= 10<sup>9</sup>



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