3640. Trionic Array II

Solved

Hard Hint

You are given an integer array `nums` of length `n`.

A **trionic subarray** is a contiguous subarray `nums[l...r]` (with `0 <= l < r < n`) for which there exist indices `l < p < q < r` such that:

- `nums[l...p]` is **strictly** increasing,
- `nums[p...q]` is **strictly** decreasing,
- `nums[q...r]` is **strictly** increasing.

Return the **maximum** sum of any trionic subarray in `nums`.

Example 1:

> **Input:** nums = [0,-2,-1,-3,0,2,-1]
>
> **Output:** -4
>
> **Explanation:**
>
> Pick `l = 1`, `p = 2`, `q = 3`, `r = 5`:
>
> - `nums[l...p] = nums[1...2] = [-2, -1]` is strictly increasing (`-2 < -1`).
> - `nums[p...q] = nums[2...3] = [-1, -3]` is strictly decreasing (`-1 > -3`)
> - `nums[q...r] = nums[3...5] = [-3, 0, 2]` is strictly increasing (`-3 < 0 < 2`).
> - Sum = `(-2) + (-1) + (-3) + 0 + 2 = -4`.

Example 2:

> **Input:** nums = [1,4,2,7]
>
> **Output:** 14
>
> **Explanation:**
>
> Pick `l = 0`, `p = 1`, `q = 2`, `r = 3`:
>
> - `nums[l...p] = nums[0...1] = [1, 4]` is strictly increasing (`1 < 4`).
> - `nums[p...q] = nums[1...2] = [4, 2]` is strictly decreasing (`4 > 2`).
> - `nums[q...r] = nums[2...3] = [2, 7]` is strictly increasing (`2 < 7`).
> - Sum = `1 + 4 + 2 + 7 = 14`.

Constraints:

- $4 <= n = nums.length <= 10^5$
- $-10^9 <= nums[i] <= 10^9$
- It is guaranteed that at least one trionic subarray exists.

Seen this question in a real interview before? 1/5

Yes No

Accepted 3.492 /19.7K | Acceptance Rate 17.8 %

Topics

Hint 1

Hint 2

Hint 3

Hint 4

Hint 5

Hint 6

Hint 7

Discussion (14)