

775. Global and Local Inversions

Description

You are given an integer array `nums` of length `n` which represents a permutation of all the integers in the range `[0, n - 1]`.

The number of **global inversions** is the number of the different pairs `(i, j)` where:

- `0 <= i < j < n`
- `nums[i] > nums[j]`

The number of **local inversions** is the number of indices `i` where:

- `0 <= i < n - 1`
- `nums[i] > nums[i + 1]`

Return `true` *if the number of **global inversions** is equal to the number of **local inversions***.

Example 1:

Input: `nums = [1,0,2]`
Output: `true`
Explanation: There is 1 global inversion and 1 local inversion.

Example 2:

Input: `nums = [1,2,0]`
Output: `false`
Explanation: There are 2 global inversions and 1 local inversion.

Constraints:

- `n == nums.length`
- `1 <= n <= 105`
- `0 <= nums[i] < n`
- All the integers of `nums` are **unique**.
- `nums` is a permutation of all the numbers in the range `[0, n - 1]`.

