# 1752. Check if Array Is Sorted and Rotated

## Description

Given an array nums, return true if the array was originally sorted in non-decreasing order, then rotated some number of positions (including zero).

Otherwise, return false.

There may be **duplicates** in the original array.

**Note:** An array A rotated by x positions results in an array B of the same length such that A[i] == B[(i+x) % A.length], where % is the modulo operation.

#### Example 1:

```
Input: nums = [3,4,5,1,2]
Output: true
Explanation: [1,2,3,4,5] is the original sorted array.
You can rotate the array by x = 3 positions to begin on the the element of value 3: [3,4,5,1,2].
```

#### Example 2:

```
Input: nums = [2,1,3,4]
Output: false
Explanation: There is no sorted array once rotated that can make nums.
```

### Example 3:

```
Input: nums = [1,2,3]
Output: true
Explanation: [1,2,3] is the original sorted array.
You can rotate the array by x = 0 positions (i.e. no rotation) to make nums.
```

#### **Constraints:**

```
• 1 <= nums.length <= 100
```

```
• 1 <= nums[i] <= 100
```