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.

**Example 4:**

**Input:** nums = [1,1,1]

**Output:** true

**Explanation:** [1,1,1] is the original sorted array.

You can rotate any number of positions to make nums.

**Example 5:**

**Input:** nums = [2,1]

**Output:** true

**Explanation:** [1,2] is the original sorted array.

You can rotate the array by x = 5 positions to begin on the element of value 2: [2,1].

**Constraints:**

* 1 <= nums.length <= 100
* 1 <= nums[i] <= 100