

## **154. Find Minimum in Rotated Sorted Array II**

Suppose an array of length  $n$  sorted in ascending order is rotated between 1 and  $n$  times. *For*

*example, the array  $nums = [0,1,4,4,5,6,7]$  might become:*

- $[4,5,6,7,0,1,4]$  if it was rotated 4 times.
- $[0,1,4,4,5,6,7]$  if it was rotated 7 times.
- Notice that rotating an array  $[a[0], a[1], a[2], \dots, a[n-1]]$  1 time results in the array  $[a[n-1], a[0], a[1], a[2], \dots, a[n-2]]$ .
- Given the sorted rotated array  $nums$  that may contain duplicates, return the minimum element of this array.
- You must decrease the overall operation steps as much as possible.

### **Example 1:**

- **Input:**  $nums = [1,3,5]$
- **Output:** 1

### **Example 2:**

- **Input:**  $nums = [2,2,2,0,1]$
- **Output:** 0

### **Constraints:**

- $n == \text{nums.length}$
- $1 \leq n \leq 5000$
- $-5000 \leq \text{nums}[i] \leq 5000$
- `nums` is sorted and rotated between 1 and  $n$  times.

**Follow up:** This problem is similar to Find Minimum in Rotated Sorted Array, but `nums` may contain duplicates. Would this affect the runtime complexity? How and why?