

153. Find Minimum in Rotated Sorted Array

Suppose an array of length n sorted in ascending order is rotated between 1 and n times. *For example, the array $nums = [0,1,2,4,5,6,7]$ might become:*

- $[4,5,6,7,0,1,2]$ if it was rotated 4 times.
- $[0,1,2,4,5,6,7]$ 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 $nums$ of unique elements, return the minimum element of this array.
- You must write an algorithm that runs in $O(\log n)$ time.

Example 1:

- **Input:** $nums = [3,4,5,1,2]$
- **Output:** 1
- **Explanation:** The original array was $[1,2,3,4,5]$ rotated 3 times.

Example 2:

- **Input:** $nums = [4,5,6,7,0,1,2]$
- **Output:** 0
- **Explanation:** The original array was $[0,1,2,4,5,6,7]$ and it was rotated 4 times.

Example 3:

- **Input:** `nums = [11,13,15,17]`
- **Output:** 11
- **Explanation:** The original array was [11,13,15,17] and it was rotated 4 times.

Constraints:

- `n == nums.length`
- `1 <= n <= 5000`
- `-5000 <= nums[i] <= 5000`
- All the integers of `nums` are unique.
- `nums` is sorted and rotated between 1 and `n` times.