

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], ..., a[n-1]]` 1 time results in the array `[a[n-1], a[0], a[1], a[2], ..., 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:

- $n == \text{nums.length}$
- $1 \leq n \leq 5000$
- $-5000 \leq \text{nums}[i] \leq 5000$
- All the integers of `nums` are **unique**.
- `nums` is sorted and rotated between 1 and n times.