

# 33. Search in Rotated Sorted Array

Medium  Topics  Companies

There is an integer array `nums` sorted in ascending order (with **distinct** values).

Prior to being passed to your function, `nums` is **possibly rotated** at an unknown pivot index `k` ( $1 \leq k < \text{nums.length}$ ) such that the resulting array is divided into two sorted parts.

Given the array `nums` **after** the possible rotation and an integer `target`, return *the index of target if it is in `nums`, or  $-1$  if it is not in `nums`*.

You must write an algorithm with  $O(\log n)$  runtime complexity.

## Example 1:

**Input:** `nums = [4,5,6,7,0,1,2], target = 0`  
**Output:** `4`

## Example 2:

**Input:** `nums = [4,5,6,7,0,1,2], target = 3`  
**Output:** `-1`

## Example 3:

**Input:** `nums = [1], target = 0`  
**Output:** `-1`

## Constraints:

- $1 \leq \text{nums.length} \leq 5000$
- $-10^4 \leq \text{nums}[i] \leq 10^4$
- All values of `nums` are **unique**.
- `nums` is an ascending array that is possibly rotated.
- $-10^4 \leq \text{target} \leq 10^4$

Seen this question in a real interview before? 1/4

☒ Yes ☐ No

Accepted **2.6M** Submissions **6.3M** Acceptance Rate **40.4%**

 Topics

 Companies

 Similar Questions

 Discussion (180)