

Suppose an array sorted in ascending order is rotated at some pivot unknown to you beforehand.

(i.e., `[0, 1, 2, 4, 5, 6, 7]` might become `[4, 5, 6, 7, 0, 1, 2]`).

You are given a target value to search. If found in the array return its index, otherwise return `-1`.

You may assume no duplicate exists in the array.

Your algorithm's runtime complexity must be in the order of $O(\log n)$.

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`