Problem statement Send feedback

You have been given a sorted array/list ***'arr'*** consisting of ***'n'*** elements. You are also given an integer ***'k'***.

Now the array is rotated at some pivot point unknown to you.

For example, if 'arr' = [1, 3, 5, 7, 8], then after rotating 'arr' at index 3, the array will be 'arr' = [7, 8, 1, 3, 5].

Now, your task is to find the index at which 'k' is present in 'arr'.

Note :

1. If 'k' is not present in 'arr', then print -1.
2. There are no duplicate elements present in 'arr'.
3. 'arr' can be rotated only in the right direction.

Example:

```
Input: 'arr' = [12, 15, 18, 2, 4] , 'k' = 2

Output: 3

Explanation:
If 'arr' = [12, 15, 18, 2, 4] and 'k' = 2, then the position at which 'k' is present in the
array is 3 (0-indexed).
```

Detailed explanation (Input/output format, Notes, Images)

Sample Input 1:

```
4 3
8 9 4 5
```

Sample output 1:

```
-1
```

Explanation of Sample Output 1:

For the test case, 3 is not present in the array. Hence the output will be -1.

Sample Input 2:

```
4 3
2 3 5 8
```

Sample output 2:

1

Expected Time Complexity:

Try to do this in O(log(n)).

Constraints:

1 <= n <= 10^5
0 <= k <= 10^9
0 <= arr[i] <= 10^9

Time Limit: 1 second