

Find Rotation Count

Given an ascending sorted rotated array **Arr** of distinct integers of size **N**. The array is right rotated **K** times. Find the value of **K**.

Example 1:

```
Input: N = 5
Arr[] = {5, 1, 2, 3, 4}
Output: 1
Explanation: The given array is 5 1 2 3 4.
The original sorted array is 1 2 3 4 5.
We can see that the array was rotated
1 times to the right.
```

Example 2:

```
Input: N = 5
Arr[] = {1, 2, 3, 4, 5}
Output: 0
Explanation: The given array is not rotated.
```

Your Task:

Complete the function **findKRotation()** which takes array **arr** and size **n**, as input parameters and returns an integer representing the answer. You don't to print answer or take inputs.

Expected Time Complexity: $O(\log(N))$

Expected Auxiliary Space: $O(1)$

Constraints:

$1 \leq N \leq 10^5$

$1 \leq \text{Arr}_i \leq 10^7$

```
#User function Template for python3
class Solution:
    def findKRotation(self, arr, n):
        # code here
        lo = 0
        hi = len(arr)-1
        if arr[lo] <= arr[hi]:
            return 0
        while lo <= hi:
```

```
    if arr[lo]<=arr[hi]:
        return 0
    mid = (lo+hi)//2
    if arr[mid]<arr[(mid-1)+n%n]:
        return mid
    elif arr[mid]>arr[(mid+1)%n]:
        return mid+1
    elif arr[lo]<=arr[mid]:
        lo = mid+1
    elif arr[mid]<=arr[hi]:
        hi = mid-1
# return mid
```