

Question :

Leet code for Search in Rotated sorted Array

Solution:

```
class Solution {  
    public int search(int[] nums, int target) {  
        int l = 0;  
        int r = nums.length - 1;  
  
        while (l <= r) {  
            final int m = (l + r) / 2;  
            if (nums[m] == target)  
                return m;  
            if (nums[l] <= nums[m]) { // nums[l..m] are sorted.  
                if (nums[l] <= target && target < nums[m])  
                    r = m - 1;  
                else  
                    l = m + 1;  
            } else { // nums[m..n - 1] are sorted.  
                if (nums[m] < target && target <= nums[r])  
                    l = m + 1;  
                else  
                    r = m - 1;  
            }  
        }  
        return -1;  
    }  
}
```

Question : Leet code for find-first-and-last-position-of-element-in-sorted-array.

Solution:

```
class Solution {  
    public int[] searchRange(int[] nums, int target) {  
        final int l = firstGreaterEqual(nums, target);  
        if (l == nums.length || nums[l] != target)  
            return new int[] {-1, -1};  
        final int r = firstGreaterEqual(nums, target + 1) - 1;  
        return new int[] {l, r};  
    }  
  
    private int firstGreaterEqual(int[] A, int target) {  
        int l = 0;  
        int r = A.length;  
        while (l < r) {  
            final int m = (l + r) / 2;  
            if (A[m] >= target)  
                r = m;  
            else  
                l = m + 1;  
        }  
        return l;  
    }  
}
```