# 在排序数组中查找数字

## 题目

统计一个数字在排序数组中出现的次数。

## 解题思路

1. 通过二分查找分别找到 n 的第一个位置和最后一个位置
2. 再进行计算就可以得出结果

public int countOfSortedArray2(int[] nums, int n) {  
 if (nums == null || nums.length == 0) return 0;  
  
 int firstN = getFirstN(nums, n);  
 int lastN = getLastN(nums, n);  
  
 return lastN - firstN + 1;  
}  
  
private int getFirstN(int[] nums, int n) {  
 int s = 0, e = nums.length - 1;  
  
 int mid = -1;  
 while (s <= e) {  
 mid = (s + e) / 2;  
  
 if (mid > 0 && nums[mid - 1] == n) {  
 e = mid - 1;  
 continue;  
 }  
  
 if (nums[mid] > n) {  
 e = mid - 1;  
 continue;  
 }  
  
 if (nums[mid] < n) {  
 s = mid + 1;  
 continue;  
 }  
  
 break;  
 }  
  
 return mid;  
}  
  
private int getLastN(int[] nums, int n) {  
 int s = 0, e = nums.length - 1;  
  
 int mid = -1;  
 while (s <= e) {  
 mid = (s + e) / 2;  
  
 if (mid < nums.length - 1 && nums[mid + 1] == n) {  
 s = mid + 1;  
 continue;  
 }  
  
 if (nums[mid] > n) {  
 e = mid - 1;  
 continue;  
 }  
  
 if (nums[mid] < n) {  
 s = mid + 1;  
 continue;  
 }  
  
 break;  
 }  
  
 return mid;  
}