

[每日 LeetCode] 747. Largest Number At Least Twice of Others

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来源网站:链滴

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Description:

In a given integer array nums, there is always exactly one largest element.

Find whether the largest element in the array is at least twice as much as every other number n the array.

If it is, return the **index** of the largest element, otherwise return -1.

Example 1:

```
Input: nums = [3, 6, 1, 0]
Output: 1
Explanation: 6 is the largest integer, and for every other number in the array x, 6 is more than twice as big as x. The index of value 6 is 1, so we return 1.
```

Example 2:

```
Input: nums = [1, 2, 3, 4]
Output: -1
Explanation: 4 isn't at least as big as twice the value of 3, so we return -1.
```

Note:

- 1. nums will have a length in the range [1, 50].
- 2. Every nums[i] will be an integer in the range [0, 99].

思路:本题题意是找出数组中最大元素,该最大元素是比其他元素大两倍的元素,若存在返回其数组标,不存在则返回-1。想法比较简单,首先对数组排序,比较最大的两个数是否满足大于两倍的关系最后返回数组下标。

C++代码

```
class Solution {
public:
    int dominantIndex(vector<int>& nums) {
        int n=nums.size();
        if(n==1)
            return 0;
        vector<int>A(nums.begin(),nums.end());
        sort(A.rbegin(),A.rend());
        if(A[0]<2*A[1])
            return -1;
        for(int i=0;i<n;i++)
        {
             if(nums[i]==A[0])
                 return i;
        }
        return -1;
}</pre>
```

运行时间: 4ms

运行内存: 8.5M