

485 Max Consecutive Ones

2018年4月12日 21:41

Given a binary array, find the maximum number of consecutive 1s in this array.

Example 1:

Input: [1,1,0,1,1,1]

Output: 3

Explanation: The first two digits or the last three digits are consecutive 1s.

The maximum number of consecutive 1s is 3.

Note:

- The input array will only contain 0 and 1.
- The length of input array is a positive integer and will not exceed 10,000

来自 <https://leetcode.com/problems/max-consecutive-ones/description/>

给定一个二进制数组，计算其中最大连续1的个数。

示例 1:

输入: [1,1,0,1,1,1]

输出: 3

解释: 开头的两位和最后的三位都是连续1，所以最大连续1的个数是 3。

注意:

- 输入的数组只包含 0 和1。
- 输入数组的长度是正整数，且不超过 10,000。

Solution for Python3:

```
1 class Solution1(object):
2     def findMaxConsecutiveOnes(self, nums):
3         cnt, ans = 0, 0
4         for num in nums:
5             if num == 1:
6                 cnt += 1
7             else:
8                 ans = max(ans, cnt)
9                 cnt = 0
10        ans = max(ans, cnt)
11        return ans
12
13 class Solution2(object):
14     def findMaxConsecutiveOnes(self, nums):
15        return max(map(lambda x: len(x), ''.join([str(num) for num in
16        nums])).split('0')))
```

Solution for C++:

```
1 class Solution1 {
2 public:
3     int findMaxConsecutiveOnes(vector<int>& nums) {
4         int maxHere = 0, maxNum = 0;
5         for (int num : nums) {
6             maxNum = max(maxNum, maxHere = num == 0 ? 0 : maxHere + 1);
7         }
8         return maxNum;
9     }
10 };
```

```
11
12 class Solution2 {
13 public:
14     int findMaxConsecutiveOnes(vector<int>& nums) {
15         int max_cnt = 0, cnt = 0;
16         for (int num : nums) {
17             if (num == 1)
18                 cnt++;
19             else {
20                 max_cnt = max(max_cnt, cnt);
21                 cnt = 0;
22             }
23         }
24         return max(max_cnt, cnt);
25     }
26 };
```