

# Problem 525: Contiguous Array

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 50.14%

**Paid Only:** No

**Tags:** Array, Hash Table, Prefix Sum

## Problem Description

Given a binary array `nums`, return the maximum length of a contiguous subarray with an equal number of `0` and `1`.

**Example 1:**

**Input:** `nums = [0,1]` **Output:** `2` **Explanation:** `[0, 1]` is the longest contiguous subarray with an equal number of 0 and 1.

**Example 2:**

**Input:** `nums = [0,1,0]` **Output:** `2` **Explanation:** `[0, 1]` (or `[1, 0]`) is a longest contiguous subarray with equal number of 0 and 1.

**Example 3:**

**Input:** `nums = [0,1,1,1,1,0,0,0]` **Output:** `6` **Explanation:** `[1,1,1,0,0,0]` is the longest contiguous subarray with equal number of 0 and 1.

**Constraints:**

`1 <= nums.length <= 105` `nums[i]` is either `0` or `1`.

## Code Snippets

**C++:**

```
class Solution {  
public:  
    int findMaxLength(vector<int>& nums) {  
  
    }  
};
```

**Java:**

```
class Solution {  
    public int findMaxLength(int[] nums) {  
  
    }  
}
```

**Python3:**

```
class Solution:  
    def findMaxLength(self, nums: List[int]) -> int:
```