

2348. Number of Zero-Filled Subarrays

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Given an integer array `nums`, return the number of **subarrays** filled with `0`.

A **subarray** is a contiguous non-empty sequence of elements within an array.

User Accepted:	10283
User Tried:	11095
Total Accepted:	10547
Total Submissions:	19823
Difficulty:	Medium

Example 1:

**Input:** `nums = [1,3,0,0,2,0,0,4]`  
**Output:** `6`  
**Explanation:**  
There are 4 occurrences of `[0]` as a subarray.  
There are 2 occurrences of `[0,0]` as a subarray.  
There is no occurrence of a subarray with a size more than 2 filled with `0`. Therefore, we return 6.

Example 2:

**Input:** `nums = [0,0,0,2,0,0]`  
**Output:** `9`  
**Explanation:**  
There are 5 occurrences of `[0]` as a subarray.  
There are 3 occurrences of `[0,0]` as a subarray.  
There is 1 occurrence of `[0,0,0]` as a subarray.  
There is no occurrence of a subarray with a size more than 3 filled with `0`. Therefore, we return 9.

Example 3:

**Input:** `nums = [2,10,2019]`  
**Output:** `0`  
**Explanation:** There is no subarray filled with `0`. Therefore, we return 0.

Constraints:

- `1 <= nums.length <= 105`
- `-109 <= nums[i] <= 109`

Discuss (<https://leetcode.com/problems/number-of-zero-filled-subarrays/discuss>)

JavaScript

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⚙️

```
1 const cutMaxConsecutive = (as) => { let d = [], l = 0, n = as.length; for (let i = 0; i + 1 < n; i++) { if (as[i + 1] !== as[i]) { d.push(as.slice(l, i + 1)); l = i + 1; } } d.push(as.slice(l)); return d; };
2 const totSub = (n) => n * (n + 1) / 2;
3
4 const zeroFilledSubarray = (a) => {
5   let res = 0, d = cutMaxConsecutive(a);
6   for (const e of d) {
7     if (e[0] === 0) res += totSub(e.length);
8   }
9   return res;
10 };
```

☐ Custom Testcase

Use Example Testcases

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Submission Result: **Accepted** (/submissions/detail/755185572/) ⓘ

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