

## 5503. Sum of All Odd Length Subarrays

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Given an array of positive integers `arr`, calculate the sum of all possible odd-length subarrays.

A subarray is a contiguous subsequence of the array.

Return *the sum of all odd-length subarrays of* `arr`.

### Example 1:

**Input:** `arr = [1,4,2,5,3]`

**Output:** 58

**Explanation:** The odd-length subarrays of `arr` and their sums are:

`[1]` = 1

`[4]` = 4

`[2]` = 2

`[5]` = 5

`[3]` = 3

`[1,4,2]` = 7

`[4,2,5]` = 11

`[2,5,3]` = 10

`[1,4,2,5,3]` = 15

If we add all these together we get  $1 + 4 + 2 + 5 + 3 + 7 + 11 + 10 + 15 = 58$ .

### Example 2:

**Input:** `arr = [1,2]`

**Output:** 3

**Explanation:** There are only 2 subarrays of odd length, `[1]` and `[2]`. Their sum is 3.

### Example 3:

**Input:** `arr = [10,11,12]`

**Output:** 66

### Constraints:

- $1 \leq \text{arr.length} \leq 100$
- $1 \leq \text{arr}[i] \leq 1000$

User Accepted: 281

User Tried: 326

Total Accepted: 281

Total Submissions: 333

Difficulty:

Easy

JavaScript



```
1 ▾ /**
2   * @param {number[]} arr
3   * @return {number}
4   */
5 ▾ const sumOddLengthSubarrays = (arr) => {
6     let n = arr.length;
7     let res = 0;
8 ▾     for (let i = 0; i < n; i++) {
9         let tmp = 0;
10 ▾         for (let j = i; j < n; j+=2) {
11             let sub = arr.slice(i, j + 1);
12             tmp+=sum(sub);
13         }
14         res+= tmp;
15     }
16     return res;
17 };
18
19 ▾ const sum = (arr) => {
20     return arr.reduce((acc, cur) => acc + cur);
21 };
```

☐ Custom Testcase

Use Example Testcases

Run

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