



# STUDENT REPORT

## DETAILS

### Name

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### Roll Number

3BR21EC109

## EXPERIMENT

### Title

#### PREFIX-SUFFIX BALANCE

### Description

You are given an array A of N integers. The array A can be divided into two parts: the first part consists of the first 'i' elements of A (where ranges from 1 to N), and the second part consists of the last (N-i) elements of A

Your task is to find and return a new array named result of the same size as A, where each element of result[i] represents the absolute difference between the sum of the elements in the first part of A and the sum of the elements in the second part of A

**Note:** For  $i = N$ ,  $N - i = 0$ . So, consider the sum of last  $N - i$  integers as 0 in this case

### Input Specifications:

input1: An integer value representing the size of the array A.

input2: An integer array A.

### Output Specification:

Return a new integer array named result of the same size as A, where each element of result[i] represents the absolute difference between the sum of the elements in the first part A and the sum of the elements in the second part of A

### Sample Input:

5

1 2 3 4 5

### Sample Output:

[13, 9, 3, 5, 15]

### Source Code:

```
def prefix_suffix(a,n):
    result=[]
    total=sum(a)
    first=0
    for i in range(n):
        first+=a[i]
        second= total-first
        diff=abs(first-second)
        result.append(diff)
    return result
n=int(input())
a=list(map(int,input().split()))
print(prefix_suffix(a,n))
```

## RESULT

5 / 5 Test Cases Passed | 100 %