

Problem

Watson gives Sherlock an array of integers. His challenge is to find an element of the array such that the sum of all elements to the left is equal to the sum of all elements to the right.

Example

*arr* = [5, 6, 8, 11]

8 is between two subarrays that sum to 11.

*arr* = [1]

The answer is [1] since left and right sum to 0.

You will be given arrays of integers and must determine whether there is an element that meets the criterion. If there is, return YES. Otherwise, return NO.

Function Description

Complete the balancedSums function in the editor below.

balancedSums has the following parameter(s):

- int arr[n]: an array of integers

Returns

- string: either YES or NO

Input Format

The first line contains *T*, the number of test cases.

The next *T* pairs of lines each represent a test case.

- The first line contains *n*, the number of elements in the array *arr*.
- The second line contains *n* space-separated integers *arr[i]* where  $0 \leq i < n$ .

Constraints

$1 \leq T \leq 10$

$1 \leq n \leq 10^5$

$1 \leq arr[i] \leq 2 \times 10^4$

$0 \leq i < n$

Sample Input

```
2
3
1 2 3
4
1 2 3 3
```

Sample Output

```
NO
YES
```

Explanation

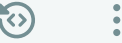
For the first test case, no such index exists.

For the second test case,  $A[0] + A[1] = A[3]$ , therefore index 2 satisfies the given conditions.

Change Theme

Language

Python 3



```
1  #!/bin/python3
2
3  import math
4  import os
5  import random
6  import re
7  import sys
8
9  #
10 # Complete the 'balancedSums' function below.
11 #
12 # The function is expected to return a STRING.
13 # The function accepts INTEGER_ARRAY arr as parameter.
14 #
15
16 def balancedSums(arr):
17     left = [None for x in arr]
18     right = [None for x in arr]
19
20     left[0] = arr[0]
21     for idx in range(1, len(arr)):
22         left[idx] = left[idx-1] + arr[idx]
23
24     right[len(right)-1] = arr[len(arr)-1]
25     for idx in reversed(range(len(arr)-1)):
26         right[idx] = right[idx+1] + arr[idx]
27
28     left: list
29     for idx in range(len(arr)):
30         if left[idx] == right[idx]:
31             return 'YES'
32
33     return 'NO'
34
35
36
37
38
39
40
```

Line: 54 Col: 5

Upload Code as File

☐ Test against custom input

Run Code

Submit Code

## Congratulations

You solved this challenge. Would you like to challenge your friends?



Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Compiler Message

Success

### Hidden Test Case

Unlock this testcase for 5 hackos.

Unlock