

## Array Equilibrium Index

Find and return the equilibrium index of an array. Equilibrium index of an array is an index  $i$  such that the sum of elements at indices less than  $i$  is equal to the sum of elements at indices greater than  $i$ .

Element at index  $i$  is not included in either part.

If more than one equilibrium index is present, you need to return the first one. And return -1 if no equilibrium index is present.

Input Format:

Line 1 : Size of input array

Line 2 : Array elements (separated by space)

Constraints:

Time Limit: 1 second

Size of input array lies in the range: [1, 1000000]

Sample Input

7

-7 1 5 2 -4 3 0

Sample Output

3