

Given an array A of N positive numbers. The task is to find the first Equilibrium Point in the array.

Equilibrium Point in an array is a position such that the sum of elements before it is equal to the sum of elements after it.

Example 1:

Input:

N = 1

A[] = {1}

Output: 1

Explanation: Since its the only element hence its the only equilibrium point.

Example 2:

Input:

N = 5

A[] = {1,3,5,2,2}

Output: 3

Explanation: For second test case equilibrium point is at position 3 as elements before it (1+3) = elements after it (2+2).

Your Task:

The task is to complete the function **equilibriumPoint()** which takes the array and N as input parameters and returns the point of equilibrium. Return -1 if no such point exists.

Expected Time Complexity: O(N)

Expected Auxiliary Space: O(1)

Constraints:

$$1 \leq N \leq 10^6$$

$$1 \leq A[i] \leq 10^8$$