

Problem I. Subarray Divisibility

Time limit 1000 ms
Mem limit 524288 kB

Given an array of n integers, your task is to count the number of subarrays where the sum of values is divisible by n .

Input

The first input line has an integer n : the size of the array.
The next line has n integers a_1, a_2, \dots, a_n : the contents of the array.

Output

Print one integer: the required number of subarrays.

Constraints

- $1 \leq n \leq 2 \cdot 10^5$
- $-10^9 \leq a_i \leq 10^9$

Example

Input	Output
5 3 1 2 7 4	1