Problem C
Balanced Consecutive Subsequences

Time limit: 3 seconds
Memory limit: 256 megabytes

Problem Description

Given a sequence of n integers $s_1, \ldots, s_n$. A consecutive subsequence $s_i, s_{i+1}, \ldots, s_j$ is balanced if and only if $s_i + s_{i+1} + \cdots + s_j = 0$. Write a program to compute the number of balanced consecutive subsequences.

Input Format

Each test case consists of two lines. The first line is an integer n ($1 \leq n \leq 10^5$) indicating the length of the sequence. The second line consists of n integers $s_1, \ldots, s_n$ saparated by blanks where $|s_i| < 10^6$.

The input is terminated by $n = 0$, and there are at most 10 test cases.

Output Format

For each test case, output the number of balanced consecutive subsequences.

Sample Input

```
3
-1 1 -1
3
-1 2 -1
4
-1 1 -1 1
0
```

Sample Output

```
2
1
4
```