

Good

You are given a sequence A consisting of N integers (not to be confused with the sequence from a previous

task). We will call the i^{th} sequence element good if it equals the sum of some three elements in positions

strictly smaller than i (an element can be used more than once in the sum). How many good elements

does the sequence contain?

Input

The first line of input contains the positive integer N ($1 \leq N \leq 5000$), the length of the sequence A . The second line of input contains N space separated integers representing the sequence

A ($-100000 \leq A_i \leq 100000$).

Output

The first and only line of output must contain the number of good elements in the sequence.

Example

Input:

2
1 3

Output:

1

Input:

6
1 2 3 5 7 10

Output:

4

Input:

3
-1 2 0

Output:

1