

## B. Wrath

time limit per test: 2 seconds  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

*Hands that shed innocent blood!*

There are  $n$  guilty people in a line, the  $i$ -th of them holds a claw with length  $L_i$ . The bell rings and every person kills some of people in front of him. All people kill others at the same time. Namely, the  $i$ -th person kills the  $j$ -th person if and only if  $j < i$  and  $j \geq i - L_i$ .

You are given lengths of the claws. You need to find the total number of alive people after the bell rings.

### Input

The first line contains one integer  $n$  ( $1 \leq n \leq 10^6$ ) — the number of guilty people.

Second line contains  $n$  space-separated integers  $L_1, L_2, \dots, L_n$  ( $0 \leq L_i \leq 10^9$ ), where  $L_i$  is the length of the  $i$ -th person's claw.

### Output

Print one integer — the total number of alive people after the bell rings.

### Examples

<b>input</b>
4 0 1 0 10
<b>output</b>
1
<b>input</b>
2 0 0
<b>output</b>
2
<b>input</b>
10 1 1 3 0 0 0 2 1 0 3
<b>output</b>
3

### Note

In first sample the last person kills everyone in front of him.