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## Stacks

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### Stacks

2.0/2.0 points (graded)

Input file:	stacks.in
Output file:	stacks.out
Time limit:	2 seconds
Memory limit:	256 megabytes

Maria had dreamed of visiting all the countries around the globe since the early childhood. And now her dreams come true: she was offered a job in one of the largest airlines of the world. How she is a stewardess. Her duties are to distribute food and drinks to passengers, and to collect empty dishes from them.

Maria collects the used cups in the following way. If a passenger has left some drink in the cup, she puts this cup in a new stack upon her moving table. If the cup is empty, she puts it to the very bottom of the smallest stack (by putting this stack into this empty cup), because it is easier to accidentally drop a bigger stack than a smaller one. She can make a new stack out of an empty cup, only if there are no stacks on the table.

Before starting to collect cups, Maria knows how much drink each passenger left in his cup. Now she wants to know whether she is able to collect all the cups without having any of the stacks dropped. For this, she needs to know the number of cups of the biggest stack. However, there are many passengers, so she cannot evaluate this number on her own. Please help Maria!

### Input

The first line of the input file contains an integer number  $N$  ( $1 \leq N \leq 10^6$ ) – the number of passengers. The second line contains  $N$  integer numbers  $a_i$  ( $0 \leq a_i \leq 100$ ) separated by single whitespaces – the remaining amount of drink in each cup, in the order Maria will collect them. If  $a_i = 0$ , then the corresponding cup is empty.

**Output**

Output the number of cups in the biggest stack.

**Example**

stacks.in	stacks.out
5 1 0 0 2 0	3
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**Note**

In this example, there will be two stacks: one containing the first three cups, and another containing the last two cups.

No file chosen

Accepted

You have used 4 of 200 attempts

**Discussion**

**Topic:** 04: 2nd Week Problems / Stacks

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