Bulbs Problem

There is a room with n bulbs, numbered from 1 to n, arranged in a row from left to right. Initially, all the bulbs are turned off.

At moment k (for k from 0 to $n-1$), we turn on the bulb with number $arr[k]$. A bulb change color to blue immediately only if it is on and all the previous bulbs (to the left) are turned on too.

In other words: bulb with number x will change it's color to blue immediately if it is turned on and all bulbs with numbers from 1 to $x-1$ are turned on.

Print the number of moments in which all turned on bulbs are blue.

Input

The first line contains an integer n represents the number of bulbs, where $(1 \leq n \leq 10^5)$.

The second line contains n integers represents the array arr

It's guarantee the array arr contains only integers from 1 to n and distinct (no duplicates).

Output

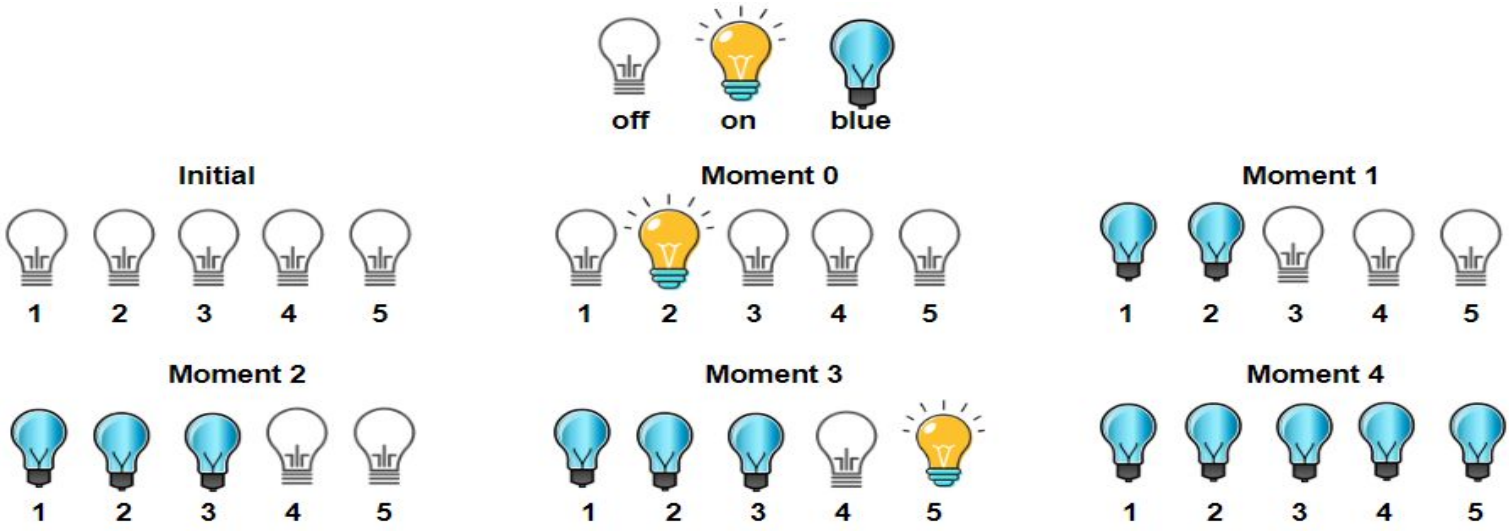
Print the number of moments in which all turned on bulbs are blue.

Bulbs Problem

Examples

input
5 2 1 3 5 4
output
3

Explanation of first Example



All bulbs turned on and blue at the moment 1, 2 and 4 (index-0).

Bulbs Problem

Other Examples

input
5 3 2 4 1 5
output
2

input
4 4 1 2 3
output
1