

The kingdom of numbers

Once upon a time in a magical land, there was a kingdom ruled by an array of integers. The kingdom was facing a peculiar challenge, and the wise sorcerer devised a magical spell to overcome it.

The array, represented by the length n , held the key to the prosperity of the kingdom. Each element in the array, ranging from a_1 to a_n , symbolized a unique aspect of the kingdom's resources.

The sorcerer discovered a powerful spell that allowed them to perform operations on the array. In each operation, the sorcerer could select a contiguous subarray—a mystical sequence of elements within the array—and replace it with the sum of its magical properties.

For example, if the array was like a mystical landscape [1, 3, 5, 6], and the sorcerer selected the subarray [3, 5], the array would transform into [1, 8, 6]. This magical transformation had the potential to enhance the kingdom's overall prosperity.

Now, the challenge was to determine the maximum length of a **non-decreasing array** that could be achieved through these magical operations. The sorcerer sought to create a harmonious sequence of magical elements that ascended or remained constant, thereby ensuring the kingdom's continuous growth.

The fate of the kingdom rested on the sorcerer's ability to wisely choose subarrays and cast the spell to maximize the length of the non-decreasing array. The question lingered: ***What was the most magnificent length achievable through the skilled application of the magical operations?***

Input

The first line contains a single integer $n(1 \leq n \leq 10^5)$ – The length of array.

The second line contains n integer $a_1, a_2, \dots, a_n (1 \leq n \leq 10^5)$ - elements in the array.

Output

The maximum length of a **non-decreasing array** that could be achieved through these magical operations.

Examples

Example 1

input

3

5 2 2

output

1

Example 2

input

4

1 2 3 4

output

4

Example 3

input

5

2 4 1 9 9

output

4