You are given a 0-indexed array of integers nums of length n. You are initially positioned at nums[0].

Each element nums[i] represents the maximum length of a forward jump from index i. In other words, if you are at nums[i], you can jump to any nums[i + j] where:

0 <= j <= nums[i] and

i + j < n

Return the minimum number of jumps to reach nums[n - 1]. It's always possible to reach nums[n-1].

Input

First line is the length of nums.

Second line is a space separated list of nums.

1 <= nums.length <= 100

0 <= nums[i] <= 1000

Input	Output	Explanation
5 2 3 1 1 4	2	The minimum number of jumps to reach the last index is 2. Jump 1 step from index 0 to 1, then 3 steps to the last index.
5 2 3 0 1 4	2	