

1827. Minimum Operations to Make the Array Increasing

Description

You are given an integer array `nums` (0-indexed). In one operation, you can choose an element of the array and increment it by 1.

- For example, if `nums = [1,2,3]`, you can choose to increment `nums[1]` to make `nums = [1, 3, 3]`.

Return *the minimum number of operations needed to make* `nums` *strictly increasing*.

An array `nums` is **strictly increasing** if `nums[i] < nums[i+1]` for all `0 ≤ i < nums.length - 1`. An array of length 1 is trivially strictly increasing.

Example 1:

Input: `nums = [1,1,1]`

Output: 3

Explanation: You can do the following operations:

- 1) Increment `nums[2]`, so `nums` becomes `[1,1, 2]`.
- 2) Increment `nums[1]`, so `nums` becomes `[1, 2, 2]`.
- 3) Increment `nums[2]`, so `nums` becomes `[1,2, 3]`.

Example 2:

Input: `nums = [1,5,2,4,1]`

Output: 14

Example 3:

Input: `nums = [8]`

Output: 0

Constraints:

- `1 ≤ nums.length ≤ 5000`
- `1 ≤ nums[i] ≤ 104`

