

Strictly Increasing Array

Given an array **nums** of **n** positive integers. Find the minimum number of operations required to modify the array such that array elements are in **strictly increasing** order ($\text{nums}[i] < \text{nums}[i+1]$).

Changing a number to **greater** or **lesser** than original number is counted as one operation.

Note: Array elements can become negative after applying operation.

Example 1:

Input:

```
n = 6
nums = [1, 2, 3, 6, 5, 4]
```

Output:

2

Explanation:

By decreasing 6 by 2 and increasing 4 by 2, nums will be like [1, 2, 3, 4, 5, 6] which is strictly increasing.

Example 2:

Input:

```
n = 4
nums = [1, 1, 1, 1]
```

Output:

3

Explanation:

One such array after operation can be [-2, -1, 0, 1]. We require at least 3 operations for this example.

Your Task:

You don't need to read or print anything. Your task is to complete the function **min_operations()** which takes the array **nums** as input parameter

and returns the minimum number of operation needed to make the array strictly increasing.

Expected Time Complexity: $O(n^2)$

Expected Space Complexity: $O(n)$

Constraints:

$1 \leq n \leq 10^3$

$1 \leq \text{nums}[i] \leq 10^9$