Array #13

Leetcode #1051

Height Checker

https://leetcode.com/problems/height-checker/description/

A school is trying to take an annual photo of all the students. The students are asked to stand in a single file line in non-decreasing order by height. Let this ordering be represented by the integer array expected where expected[i] is the expected height of the ith student in line.
You are given an integer array heights representing the current order that the students are standing in. Each height[i] is the height of the ith student in line (0-indexed)
Return the number of indices where height[i] != expected[i]

Example 1:
Input: heights = [1, 1, 4, 2, 1, 3]
Output: 3

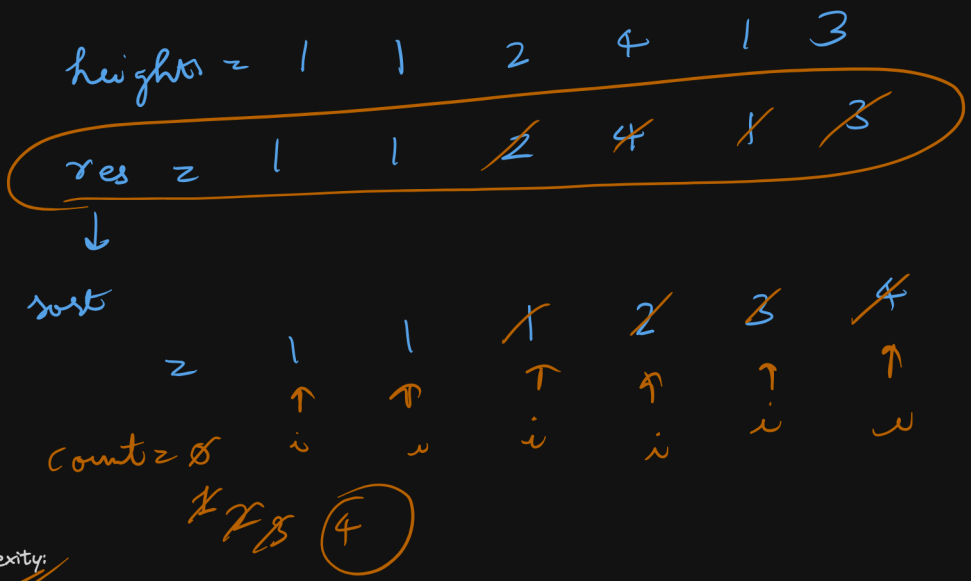
Example 2:
Input: heights = [5, 1, 2, 3, 4]
Output: 5

Example 3:
Input: heights = [1, 2, 3, 4, 5]
Output: 0

Constraints:
1 <= heights.length <= 100
1 <= heights[i] <= 100

Companies:
Google, Meta, Salesforce

Approach 1:



Time complexity:
O(N.logN)
Space Complexity:
O(N)

```java
class Solution {
    public int heightChecker(int[] heights) {
        Integer[] res = new Integer[heights.length];

        for (int i = 0; i < heights.length; i++) {
            res[i] = heights[i];
        }

        Arrays.sort(res);

        int count = 0;

        for (int i = 0; i < heights.length; i++) {
            if (heights[i] != res[i]) {
                count++;
            }
        }

        return count;
    }
}
```