2790. Maximum Number of Groups With Increasing Length

Description

You are given a **0-indexed** array usageLimits of length n.

Your task is to create **groups** using numbers from 0 to n - 1, ensuring that each number, i, is used no more than usageLimits[i] times in total **across all groups**. You must also satisfy the following conditions:

- Each group must consist of distinct numbers, meaning that no duplicate numbers are allowed within a single group.
- Each group (except the first one) must have a length strictly greater than the previous group.

Return an integer denoting the maximum number of groups you can create while satisfying these conditions.

Example 1:

```
Input: usageLimits = [1,2,5]
Output: 3
Explanation: In this example, we can use 0 at most once, 1 at most twice, and 2 at most five times.
One way of creating the maximum number of groups while satisfying the conditions is:
Group 1 contains the number [2].
Group 2 contains the numbers [1,2].
Group 3 contains the numbers [0,1,2].
It can be shown that the maximum number of groups is 3.
So, the output is 3.
```

Example 2:

```
Input: usageLimits = [2,1,2]
Output: 2
Explanation: In this example, we can use 0 at most twice, 1 at most once, and 2 at most twice.
One way of creating the maximum number of groups while satisfying the conditions is:
Group 1 contains the number [0].
Group 2 contains the numbers [1,2].
It can be shown that the maximum number of groups is 2.
So, the output is 2.
```

Example 3:

```
Input: usageLimits = [1,1]
Output: 1
Explanation: In this example, we can use both 0 and 1 at most once.
One way of creating the maximum number of groups while satisfying the conditions is:
Group 1 contains the number [0].
It can be shown that the maximum number of groups is 1.
So, the output is 1.
```

Constraints:

- 1 <= usageLimits.length <= 10 ⁵
- 1 <= usageLimits[i] <= 10 9