6133. Maximum Number of Groups Entering a Competition

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You are given a positive integer array `grades` which represents the grades of students in a university. You would like to enter **all** these students into a competition in **ordered** non-empty groups, such that the ordering meets the following conditions:

- The sum of the grades of students in the i^{th} group is **less than** the sum of the grades of students in the $(i + 1)^{th}$ group, for all groups (except the last).
- The total number of students in the i^{th} group is **less than** the total number of students in the $(i + 1)^{th}$ group, for all groups (except the last).

Return *the **maximum** number of groups that can be formed.*

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

```
Input: grades = [10,6,12,7,3,5]
Output: 3
Explanation: The following is a possible way to form 3 groups of students:
- 1st group has the students with grades = [12]. Sum of grades: 12. Student count: 1
- 2nd group has the students with grades = [6,7]. Sum of grades: 6 + 7 = 13. Student count: 2
- 3rd group has the students with grades = [10,3,5]. Sum of grades: 10 + 3 + 5 = 18. Student count: 3
It can be shown that it is not possible to form more than 3 groups.
```

Example 2:

```
Input: grades = [8,8]
Output: 1
Explanation: We can only form 1 group, since forming 2 groups would lead to an equal number of students in both groups.
```

Constraints:

- `1 <= grades.length <= 10^5`
- `1 <= grades[i] <= 10^5`

JavaScript

```
const maximumGroups = (a) => {
    a.sort((x, y) => x - y);
    let n = a.length, g = [], sum = 0, cur = [];
    g.push([[a[0]], a[0]])
    for (let i = 1; i < n; i++) {
        let [preGroup, preSum] = g[g.length - 1];
        sum += a[i];
        cur.push(a[i]);
        if (sum > preSum && cur.length > preGroup.length) {
            g.push([cur, sum]);
            sum = 0;
            cur = [];
        }
    }
    return g.length;
};
```

Custom Testcase Use Example Testcases

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Submission Result: Accepted (/submissions/detail/761102466/) More Details > (/submissions/detail/761102466/)

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