Problem 2244: Minimum Rounds to Complete All Tasks

Problem Information

Difficulty: Medium
Acceptance Rate: 63.12%
Paid Only: No
Tags: Array, Hash Table, Greedy, Counting

Problem Description

You are given a **0-indexed** integer array `tasks`, where `tasks[i]` represents the difficulty level of a task. In each round, you can complete either 2 or 3 tasks of the **same difficulty level**.

Return _the**minimum** rounds required to complete all the tasks, or _`-1` _if it is not possible to complete all the tasks._

Example 1:

Input: tasks = [2,2,3,3,2,4,4,4,4,4] **Output:** 4 **Explanation:** To complete all the tasks, a possible plan is: - In the first round, you complete 3 tasks of difficulty level 2. - In the second round, you complete 2 tasks of difficulty level 3. - In the third round, you complete 3 tasks of difficulty level 4. - In the fourth round, you complete 2 tasks of difficulty level 4. It can be shown that all the tasks cannot be completed in fewer than 4 rounds, so the answer is 4.

Example 2:

Input: tasks = [2,3,3] **Output:** -1 **Explanation:** There is only 1 task of difficulty level 2, but in each round, you can only complete either 2 or 3 tasks of the same difficulty level. Hence, you cannot complete all the tasks, and the answer is -1.

Constraints:

* `1 <= tasks.length <= 105` * `1 <= tasks[i] <= 109`

Note: This question is the same as [2870: Minimum Number of Operations to Make Array Empty.](https://leetcode.com/problems/minimum-number-of-operations-to-make-array-empty/description/)

Code Snippets

C++:

```
class Solution {
public:
int minimumRounds(vector<int>& tasks) {

}
};
```

Java:

```
class Solution {
public int minimumRounds(int[] tasks) {

}
}
```

Python3:

```
class Solution:
def minimumRounds(self, tasks: List[int]) -> int:
```