12371 - LAB 13

Instructions

1. Access the auto-grader at https://c200.luddy.indiana.edu

2. Please write the code for the problems in python language

3. The code should be readable with variables named meaningfully

4. Plagiarism is unacceptable and we have ways to find it, so do not do it

5. Don't change the function signature (name of the function and number and types of arguments) provided in this file.

6. Once you pass all the tests on the auto grader, show your work to the teaching assistant

Problem

Question

In a whimsical realm, there's a hidden village inhabited by colorful rabbits. Each rabbit possesses a unique ability, but to unlock it, they must gather in groups of the same color. You've surveyed a few rabbits, asking them how many others share their color. With this information, your task is to determine the minimum number of rabbits needed to unlock all their abilities.

Examples

Example 1:
Input: answers = [1,1,2]
Output: 5
Explanation:
The two rabbits that answered "1" could both be the same color, say red. The rabbit that answered "2" can't be red or the answers would be inconsistent. Say the rabbit that answered "2" was blue. Then there should be 2 other blue rabbits in the forest that didn't answer into the array. The smallest possible number of rabbits in the forest is therefore 5: 3 that answered plus 2 that didn't.

Example 2:
Input: answers = [10,10,10]
Output: 11

Function signature

```
def numRabbits(answers):
```