

# 2171. Removing Minimum Number of Magic Beans

## Description

You are given an array of **positive** integers `beans`, where each integer represents the number of magic beans found in a particular magic bag.

**Remove** any number of beans ( **possibly none** ) from each bag such that the number of beans in each remaining **non-empty** bag (still containing **at least one** bean) is **equal**. Once a bean has been removed from a bag, you are **not** allowed to return it to any of the bags.

Return *the minimum number of magic beans that you have to remove*.

### Example 1:

**Input:** `beans = [4,1,6,5]`

**Output:** 4

**Explanation:**

- We remove 1 bean from the bag with only 1 bean.  
This results in the remaining bags: `[4, 0, 6, 5]`
- Then we remove 2 beans from the bag with 6 beans.  
This results in the remaining bags: `[4, 0, 4, 5]`
- Then we remove 1 bean from the bag with 5 beans.  
This results in the remaining bags: `[4, 0, 4, 4]`

We removed a total of  $1 + 2 + 1 = 4$  beans to make the remaining non-empty bags have an equal number of beans.  
There are no other solutions that remove 4 beans or fewer.

### Example 2:

**Input:** `beans = [2,10,3,2]`

**Output:** 7

**Explanation:**

- We remove 2 beans from one of the bags with 2 beans.  
This results in the remaining bags: `[ 0, 10, 3, 2]`
- Then we remove 2 beans from the other bag with 2 beans.  
This results in the remaining bags: `[0, 10, 3, 0]`
- Then we remove 3 beans from the bag with 3 beans.  
This results in the remaining bags: `[0, 10, 0, 0]`

We removed a total of  $2 + 2 + 3 = 7$  beans to make the remaining non-empty bags have an equal number of beans.  
There are no other solutions that removes 7 beans or fewer.

### Constraints:

- `1 <= beans.length <= 105`
- `1 <= beans[i] <= 105`

