

# Questions.

LC-914

LC-1502

LC-554

LC-1935

LC-1160

LC-1002

LC-242

914. X of a Kind in a Deck of Cards

Easy 1740 463 Add to List Share

You are given an integer array `deck` where `deck[i]` represents the number written on the  $i^{\text{th}}$  card.

Partition the cards into **one or more groups** such that:

- Each group has **exactly**  $x$  cards where  $x > 1$ , and
- All the cards in one group have the same integer written on them.

Return `true` if such partition is possible, or `false` otherwise.

Example 1:

Input: `deck = [1,2,3,4,4,3,2,1]`  
Output: `true`  
Explanation: Possible partition `[1,1],[2,2],[3,3],[4,4]`.

|   |   |
|---|---|
| 1 | 2 |
| 2 | 2 |
| 3 | 3 |
| 4 | 2 |

2<sup>nd</sup>  
1 → 2  
2 → 4  
3 → 3

1 1 2 2 2 2  
[11][22]  
[22] ↖  
2 ans  
x=2 → true

eg. (1 1 2 2 2 2) 3 3 → true.  
[11] [22] [22] [33]

k, v  
1 → 2  
2 → 4  
3 → 2 → 2

gcd (all values).  
iterative ✓  
recursive

gcd == 1

## 1502. Can Make Arithmetic Progression From Sequence

Easy   2085   105   Add to List   Share

A sequence of numbers is called an **arithmetic progression** if the difference between any two consecutive elements is the same.

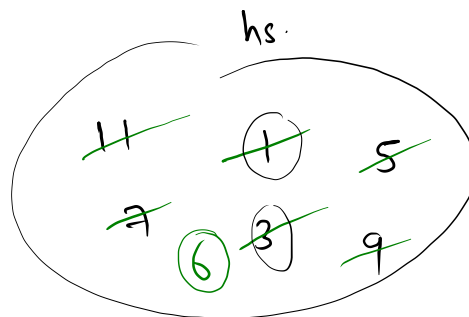
Given an array of numbers `arr`, return `true` if the array can be rearranged to form an **arithmetic progression**. Otherwise, return `false`.

$$ap \rightarrow cd = \underline{\quad?}$$

11   1   5   7   3   9

$$\text{min} = \underline{\quad 1^{\text{st}} \text{ ele.} \quad}$$

1<sup>✓</sup>   5   9   (13)  
3<sup>✓</sup>   7   11



not present

hs.size == 0  
ap

hs.size != 0  
false

$$cd = ?$$

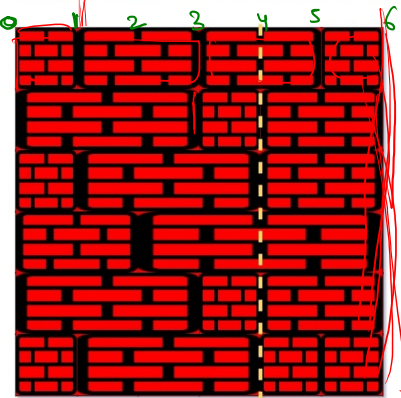
$$\hookrightarrow \text{min} = 1$$

$$\text{2nd min} = 3$$

$$cd = 3 - 1 = 2$$

# 554. Brick Wall

Medium 2395 141 Add to List Share



Input: wall = ~~(1,2,2,1)~~, [3,1,2], [1,3,2], [2,4], ~~(3,1,2)~~, ~~(1,3,1,1)~~  
Output: 2

$$5-3=2$$

$$6-3-1$$

0th row. sum = 0

$$\text{sum} = \cancel{0} \cancel{1} \cancel{2} \cancel{3} \cancel{4}$$

1st row sum = 0

$$\text{sum} = 3 + 1$$

2nd row sum = 0

$$\text{sum} = \cancel{2} \cancel{6}$$

3rd row sum = 0 + 1

4th. sum = ~~1~~ ~~4~~ ~~5~~

map. max safe brick

$$1 \rightarrow \cancel{1} \cancel{2}$$

$$2 \rightarrow 1$$

$$3 \rightarrow \cancel{1} \cancel{2} \textcircled{3}$$

$$4 \rightarrow \cancel{1} \cancel{2} \cancel{3}$$

$$5 \rightarrow \cancel{1} \cancel{2}$$

$$\cancel{6 \rightarrow \cancel{1} \cancel{2} \cancel{3} \cancel{4} \cancel{5}}$$

$$mV=3$$

1st row.

- 1 → ✓
- 2 → ✓
- 3 → ✗
- 4 → ✗
- 5 → ✓

2nd.

- 1 → ~~0~~ Overall
- 2 → ~~1~~ 2
- 3 → ~~0~~ 0
- 4 → ~~1~~ 1
- 5 → ~~0~~ 1

hint: safe bricks (↑)  
cut bricks (↓)

$$\text{sum} \rightarrow 0$$

for (row)

{

}

$$n = mV - 1$$

6th row →

- 1 ✗
- 2 ✓
- 3 ✗
- 4 ✓
- 5 ✗