

Problem 860: Lemonade Change

Problem Information

Difficulty: Easy

Acceptance Rate: 58.78%

Paid Only: No

Tags: Array, Greedy

Problem Description

At a lemonade stand, each lemonade costs `\$5`. Customers are standing in a queue to buy from you and order one at a time (in the order specified by bills). Each customer will only buy one lemonade and pay with either a `\$5`, `\$10`, or `\$20` bill. You must provide the correct change to each customer so that the net transaction is that the customer pays `\$5`.

Note that you do not have any change in hand at first.

Given an integer array `bills` where `bills[i]` is the bill the `i`th customer pays, return `true` if you can provide every customer with the correct change, or `false` otherwise.

Example 1:

Input: bills = [5,5,5,10,20] **Output:** true **Explanation:** From the first 3 customers, we collect three \$5 bills in order. From the fourth customer, we collect a \$10 bill and give back a \$5. From the fifth customer, we give a \$10 bill and a \$5 bill. Since all customers got correct change, we output true.

Example 2:

Input: bills = [5,5,10,10,20] **Output:** false **Explanation:** From the first two customers in order, we collect two \$5 bills. For the next two customers in order, we collect a \$10 bill and give back a \$5 bill. For the last customer, we can not give the change of \$15 back because we only have two \$10 bills. Since not every customer received the correct change, the answer is false.

Constraints:

* `1 <= bills.length <= 105` * `bills[i]` is either `5`, `10`, or `20`.

Code Snippets

C++:

```
class Solution {  
public:  
    bool lemonadeChange(vector<int>& bills) {  
  
    }  
};
```

Java:

```
class Solution {  
    public boolean lemonadeChange(int[] bills) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def lemonadeChange(self, bills: List[int]) -> bool:
```