860. Lemonade Change

Easy

Topics

Companies

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 `ith` 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`.

Solution:

```
class Solution {

    public boolean lemonadeChange(int[] bills) {

        int five_dollars = 0;

        int ten_dollars = 0;

        for(int i =0; i<bills.length; i++){

            if(bills[i]==5){

                five_dollars++;

            }else if(bills[i] == 10){

                if(five_dollars >0){

                    five_dollars--;

                    ten_dollars++;

                }else{

                    return false;

                }

            }else if(bills[i] ==20){

                if(five_dollars > 0 && ten_dollars>0){

                    five_dollars--;

                    ten_dollars--;

                }else if(five_dollars > 2){

                    five_dollars -=3;

                }else{

                    return false;

                }

            }

        }
```

```
            return true;
        }
    }
```