NAME: Semit

UID: 22BCS13024

Sec: 601/A

1st: 1710 leetcode

```cpp
class Solution {
public:
    int maximumUnits(vector<vector<int>>& boxTypes, int truckSize) {
        sort(boxTypes.begin(), boxTypes.end(), [](vector<int>& a, vector<int>& b) {
            return a[1] > b[1];
        });

        int ans = 0;
        for (auto& box : boxTypes) {
            int x = min(box[0], truckSize);
            ans += (x * box[1]);
            truckSize -= x;
            if (truckSize == 0) break;
        }
        return ans;
    }
};
```
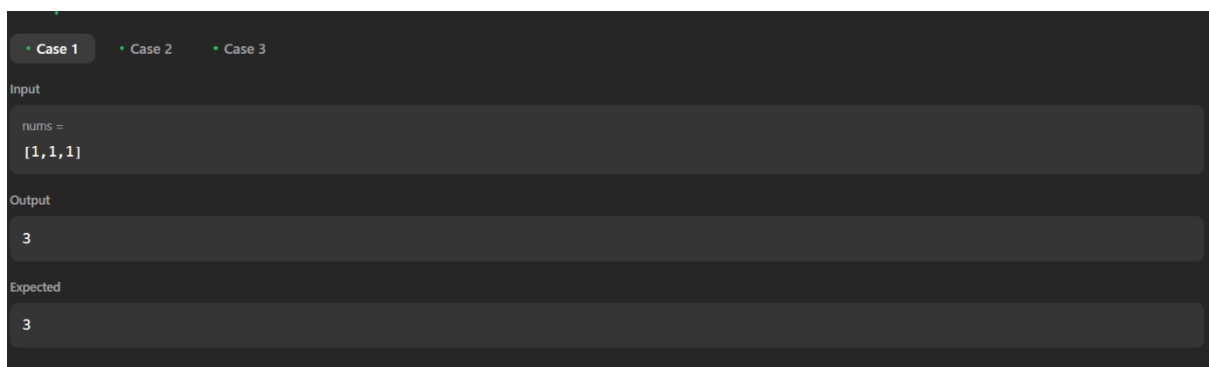
Input

boxTypes =
[[1,3],[2,2],[3,1]]

truckSize =
4

Output

8

Expected

8

Contribute a testcase

2ND:1827 leetcode

```
class Solution {

public:

    int minOperations(vector<int>& nums) {

        int steps = 0;


        for (int i = 0; i < nums.size() - 1; ++i) {

            if (nums[i] > nums[i + 1]) {

                steps += ((nums[i] - nums[i + 1]) + 1);

                nums[i + 1] += ((nums[i] - nums[i+1]) + 1);

            } else if (nums[i] == nums[i + 1]) {

                steps += 1;

                nums[i + 1] += 1;

            }

        }


        return steps;

    }

};
```


3RD :1962 leetcode

```
class Solution {

public:

    int minStoneSum(vector<int>& piles, int k) {
```

```cpp
        priority_queue<int>pq(piles.begin(),piles.end());

        int ans=0;

        for(int i=0;i<k;i++){

            int tp=pq.top();

            pq.pop();

            tp-=(tp/2);

            pq.push(tp);

        }

        while(!pq.empty()){

            ans+=pq.top();

            pq.pop();

        }

        return ans;

    }

};
```

```
Input

piles =
[5,4,9]

k =
2

Output

12

Expected

12
```

4TH : 1717 leetcode

```cpp
class Solution {

public:

    int maximumGain(string s, int x, int y) {

        vector<char> st1;

        stack<char> st2;

        char first = (x>y) ? 'a' : 'b';

        char second = (x>y) ? 'b' : 'a';

        int maxV= max(x, y);
```

```cpp
        int minV = min(x, y);

        int ans=0;

        for(char c: s){

            if(!st1.empty()  &&  st1.back()==first && c== second){

                ans= ans+ maxV;

                st1.pop_back();

            }

            else{

                st1.push_back(c);

            }



        }


        for(char c: st1){

            if(!st2.empty()  &&  st2.top()==second && c== first){

                ans= ans+ minV;

                st2.pop();

            }

            else{

                st2.push(c);

            }


        }


        return ans;


    }


};
```

s =
"cdbcbbaaabab"

x =
4

y =
5

Output
19

Expected
19