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UID: 22BCS10793

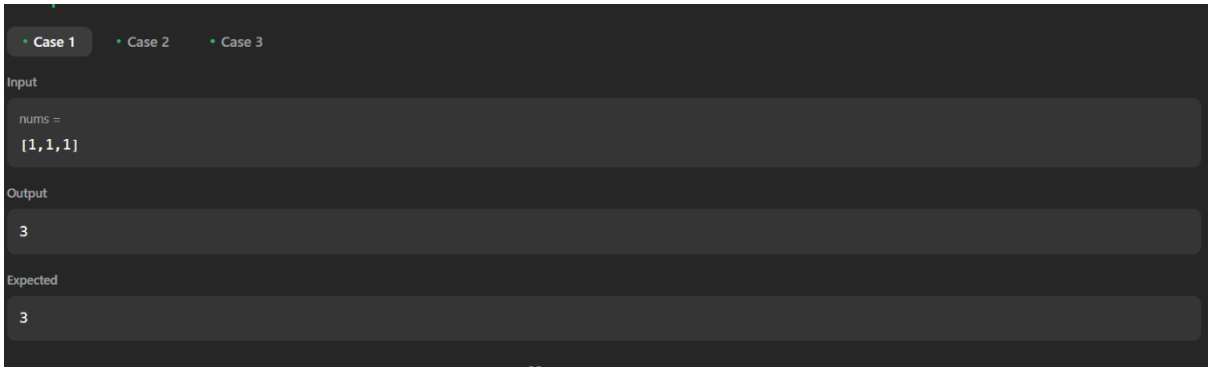
Sec: 601/A

1st: 1710 leetcode

```
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;
    }
};
```

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) {
```

```
        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;
    }
};
```

4TH : 1717 leetcode

```
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);
```

```
        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