Worksheet -3

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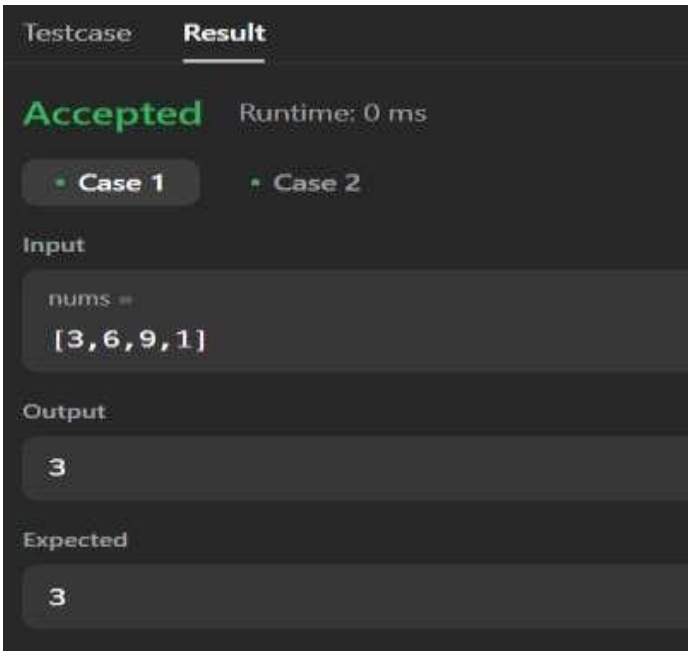
Que-1: Maximum Gap

Code:
```
class
Solution
{public:
   int maximumGap(vector<int>& nums)
      {sort(nums.begin(), nums.end()); int
      ans=0; for(int
      i=0;i<nums.size()1;i++){if(ans<(nu
      ms[i+1]nums[i])){
            ans=nums[i+1]-nums[i];
         }
      } return
      ans;
   }
};
```

Output:



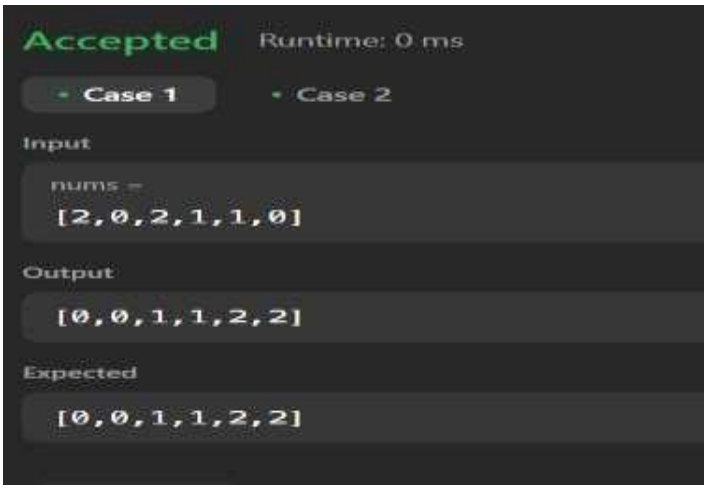
Que-2: Sort Colors

Code: class

```
Solution {public:
    void sortColors(vector<int>& nums)
        {int start=0; int
        end=nums.size()-1;
        int i=0;
        while(i<=end){
            if(nums[i]==0){
                int temp=nums[i];
            nums[i]=nums[start];
            nums[start]=temp;
            start++; i++; } else
                if(nums[i]==2){ int
                temp=nums[i];
                nums[i]=nums[end];
                nums[end]=temp;
                end--; }
            else{i++;
            }
        }
```

```
    }
};
```

Output:


Accepted
Runtime: 0 ms
Case 1
Case 2
Input
nums =
[2,0,2,1,1,0]
Output
[0,0,1,1,2,2]
Expected
[0,0,1,1,2,2]

Que-3: Chef and Lockout Draws

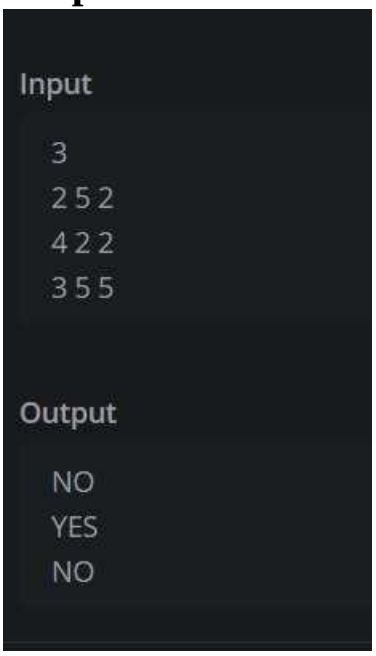
Code:

```
#include <iostream> using namespace std;

int main() { int t;
    cin>>t; while(t--){ int a,b,c;
    cin>>a; cin>>b;
    cin>>c; if(a>b and a>c){if(a==b+c){
        cout<<"YES"<<endl; }
        else{
            cout<<"NO"<<endl;
        }
    } else if(b>a and b>c){if(b==a+c){
            cout<<"YES"<<endl;
        }
        else{
            cout<<"NO"<<endl;
        }
    }
    else{
        if(c==a+b){
        cout<<"YE S"<<endl;
        }
        else{
            cout<<"NO"<<endl;
        }
    }
```

```
}
```

Output:



Que-4: Turbo Sort

Code:

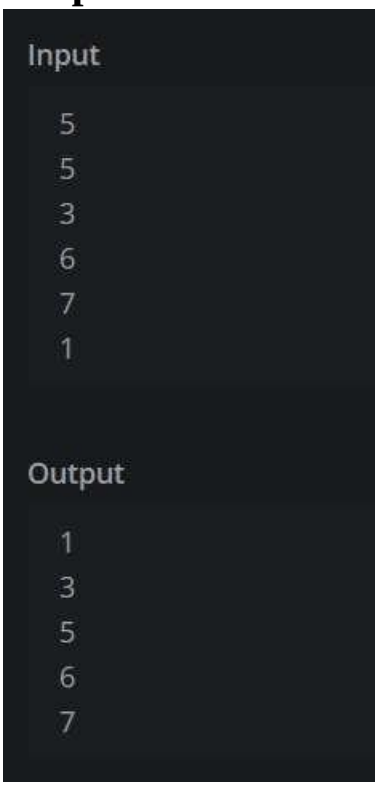
```
#include <bits/stdc++.h>

using namespace std;

int main() { // your code
        goes here
        int  t;  cin>>t;  vector
        <int> a(t); for(int i = 0;
        i< t ; i++){
            cin>>a[i];
        }
        sort(a.begin(),a.end());
        for(int x : a)
        cout<<x<<endl; return
        0;
```

}

Output:



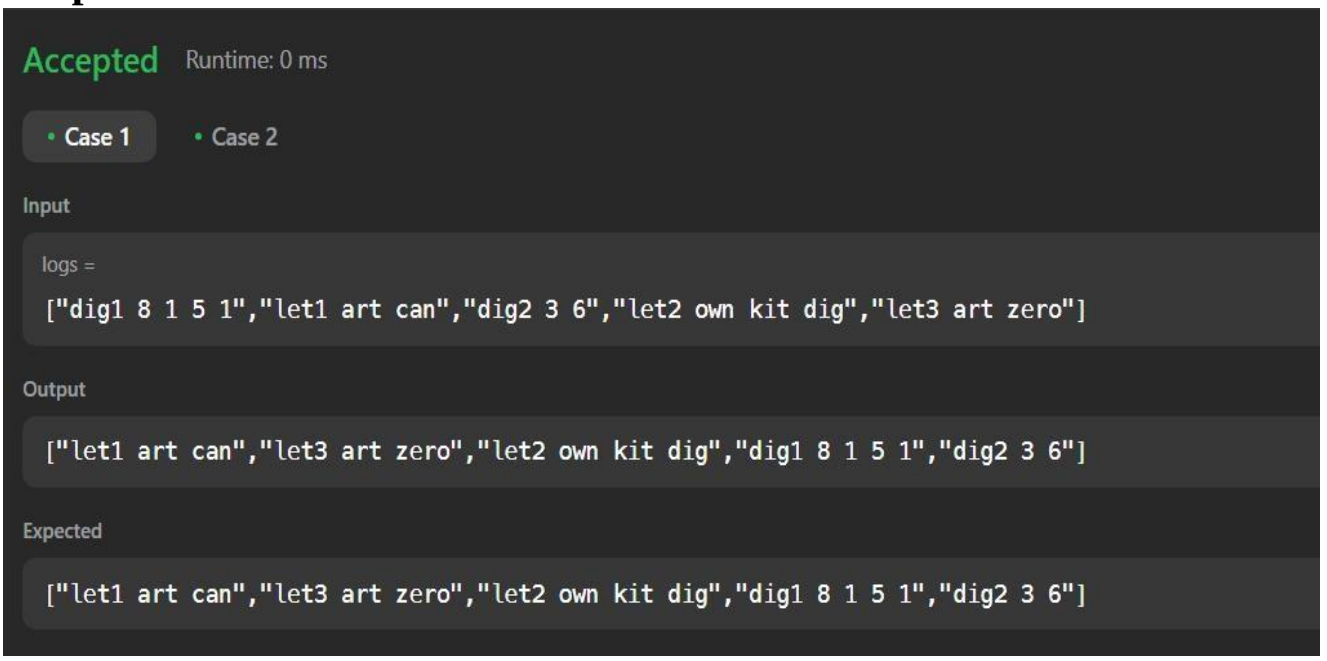
Que-5: [Reorder Data in Log Files](#) Code: class Solution {public: vector<string> reorderLogFiles(vector<string>& logs) { auto it = stable_partition(logs.begin(), logs.end(), [](const string& str) {return isalpha(str[str.find(' ') + 1]);
});

sort(logs.begin(), it, [](const string& str1, const string& str2) {auto substr1 = string(str1.begin() + str1.find(' '), str1.end());
auto substr2 = string(str2.begin() + str2.find(' '), str2.end());
return (substr1 == substr2) ? str1 < str2 : substr1 < substr2;
}); return

logs; }

};

Output:


Accepted
Runtime: 0 ms
Case 1
Case 2
Input
logs =
["dig1 8 1 5 1","let1 art can","dig2 3 6","let2 own kit dig","let3 art zero"]
Output
["let1 art can","let3 art zero","let2 own kit dig","dig1 8 1 5 1","dig2 3 6"]
Expected
["let1 art can","let3 art zero","let2 own kit dig","dig1 8 1 5 1","dig2 3 6"]