Worksheet -3

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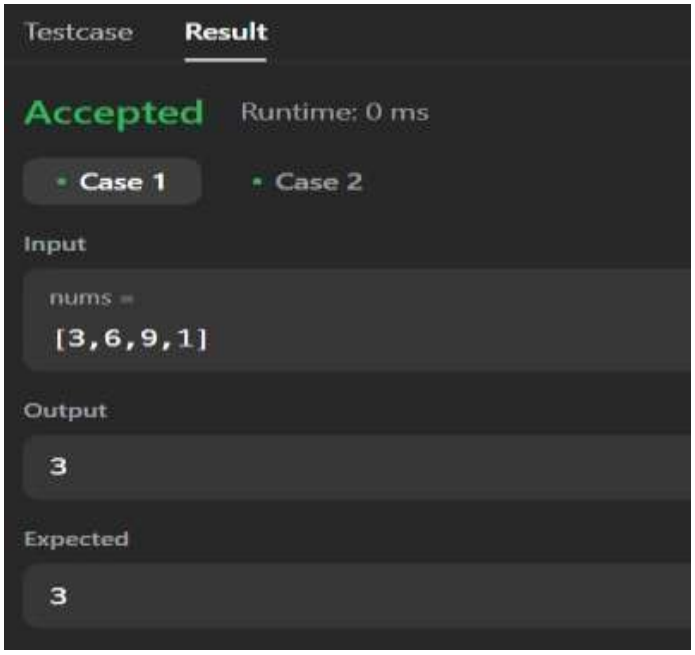
Que-1: Maximum Gap

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<(nums[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:

Que-3: [Chef and Lockout Draws]

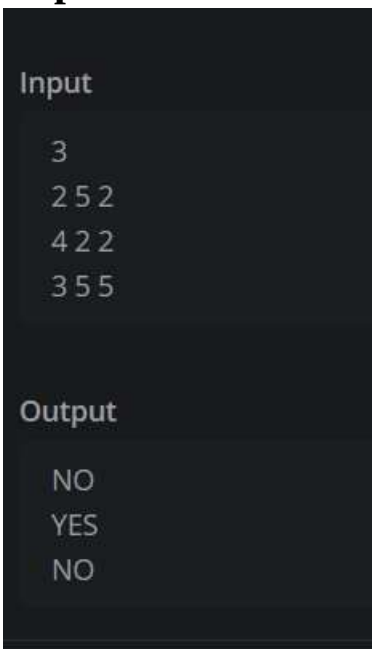
Code:

```
#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<<"YES"<<endl;
}              else{
          cout<<"NO"<<endl;
       }
          }
        }
```

Output:



Que-4: [Turbo Sort]

Code:

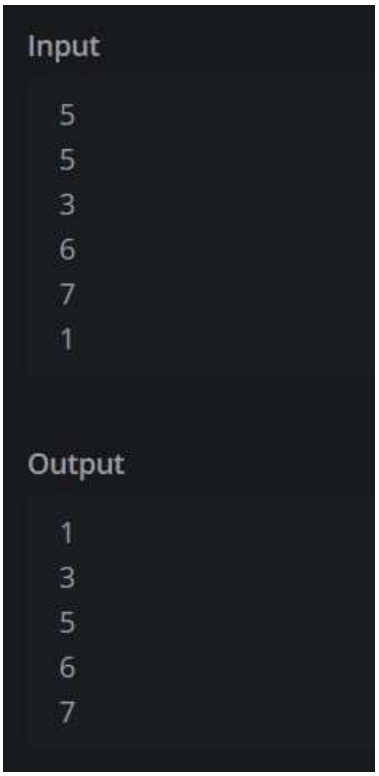
```
#include <bits/stdc++.h>

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: