# Worksheet -3

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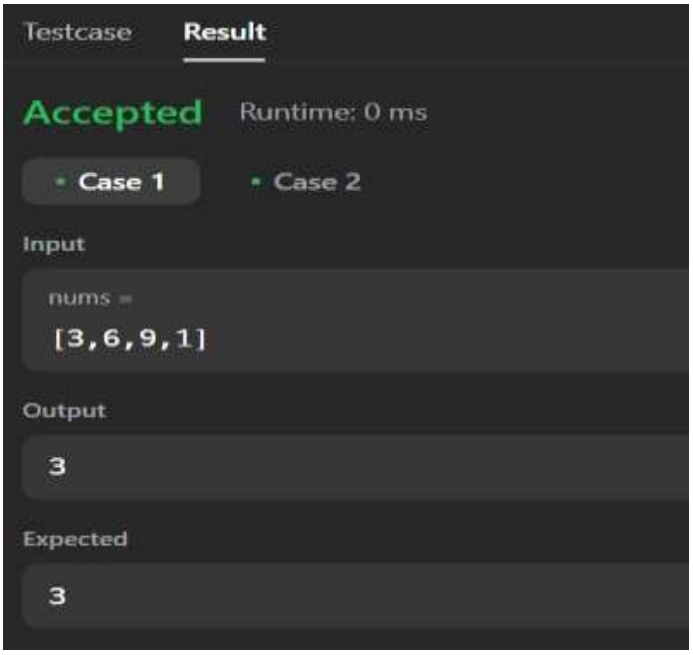
**Que-1: Maximum Gap**

**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]

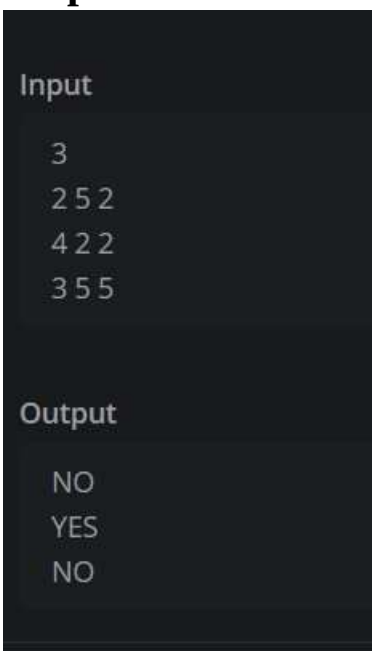
**Code:**

```
#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**

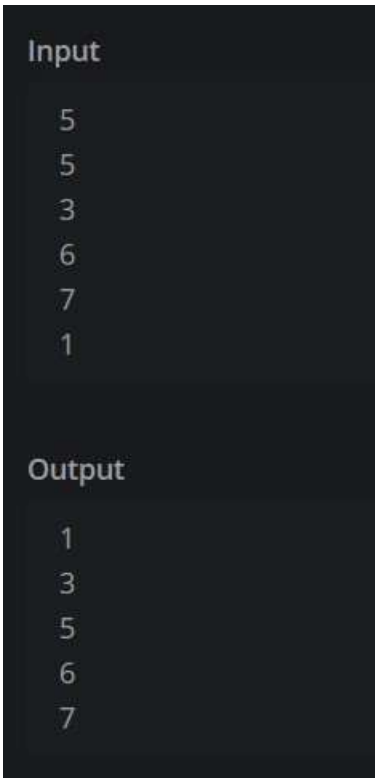
**Code:**

```
#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:**