Worksheet – 3

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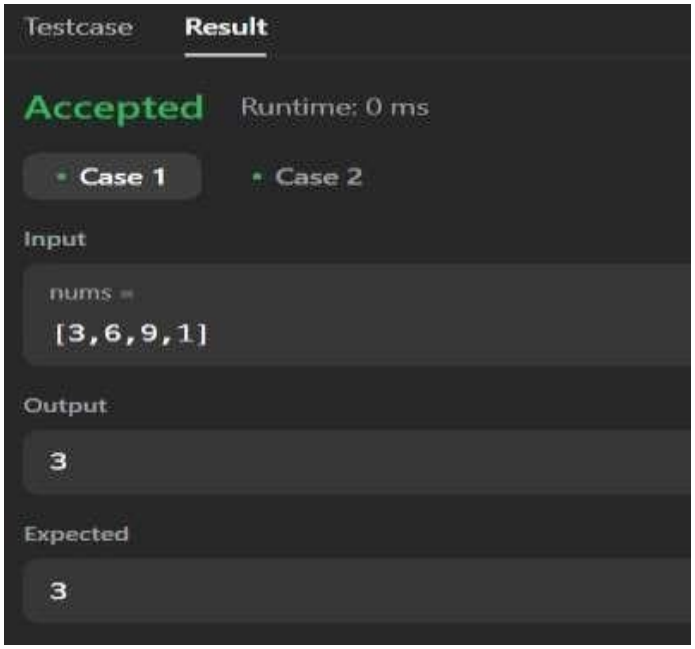
Que-1: Maximum Gap

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:-

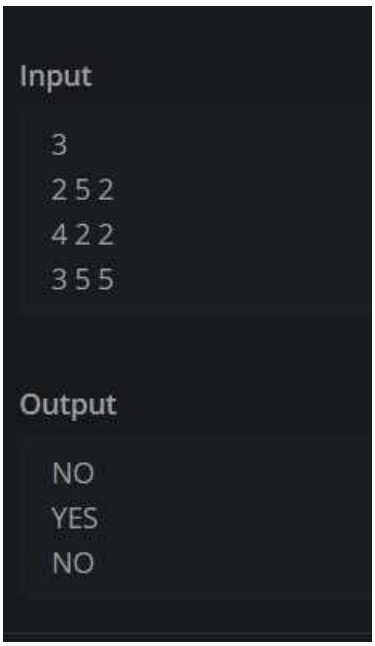
Code:

```
#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:

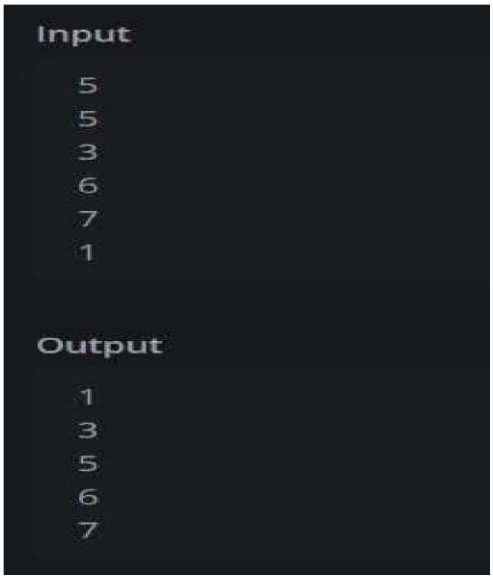


Que-4: Turbo Sort:-

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: