

## Worksheet -3

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SEC-DWWC 43

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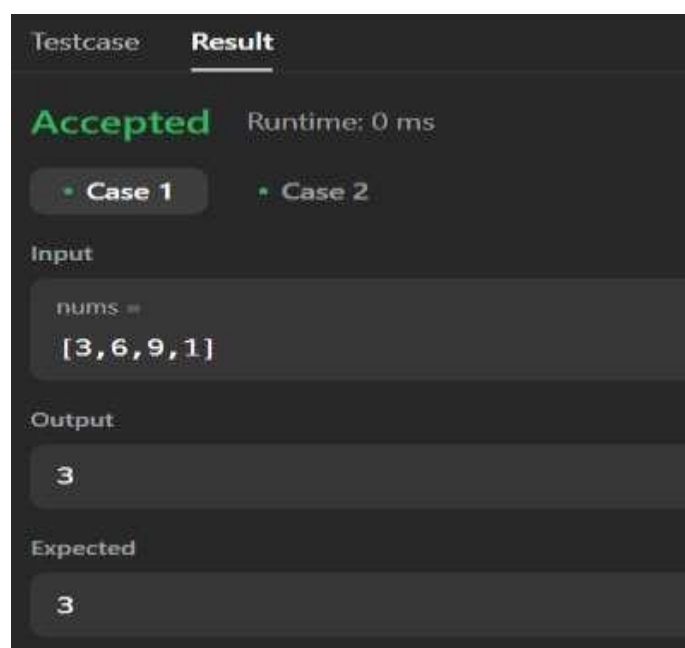
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### Que-1: Maximum Gap

#### 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:



The screenshot shows a coding platform interface with a dark theme. At the top, there are tabs for 'Testcase' and 'Result', with 'Result' being the active tab. Below the tabs, the word 'Accepted' is displayed in green, followed by 'Runtime: 0 ms'. There are two buttons labeled 'Case 1' and 'Case 2', both with a small minus sign to their left. Under the 'Input' section, there is a text area containing 'nums =' and '[3,6,9,1]'. Below that, the 'Output' section shows the number '3'. At the bottom, the 'Expected' section also shows the number '3'.

**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:**

```
Input  
3  
2 5 2  
4 2 2  
3 5 5  
  
Output  
NO  
YES  
NO
```

**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:

```
Input
5
5
3
6
7
1

Output
1
3
5
6
7
```

### 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"]
```