Worksheet -3

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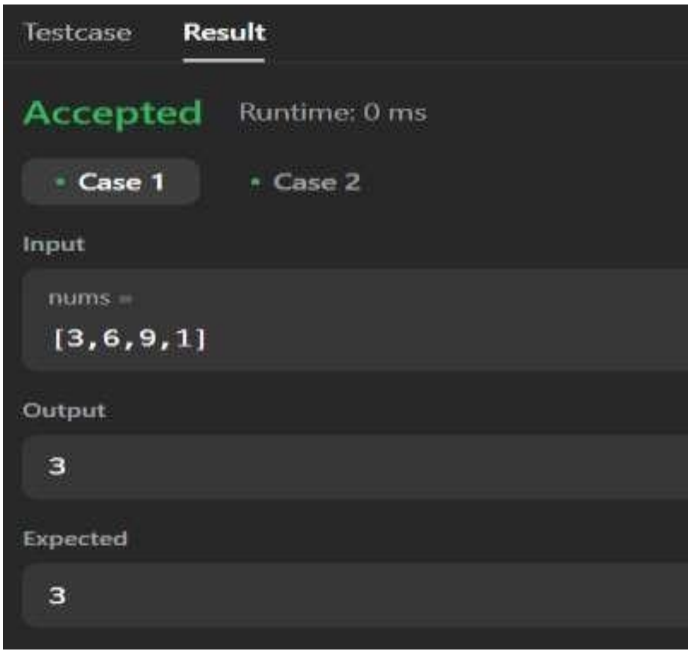
Que-1: Maximum Gap

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<(n
      ums[i+1]nums[i])){
           ans=nums[i+1]-nums[i];
         }
      } return
      ans;
   }
};
```

Output:



Testcase Result

Accepted Runtime: 0 ms

• Case 1 • Case 2

Input

```
nums =
[3,6,9,1]
```

Output

```
3
```

Expected

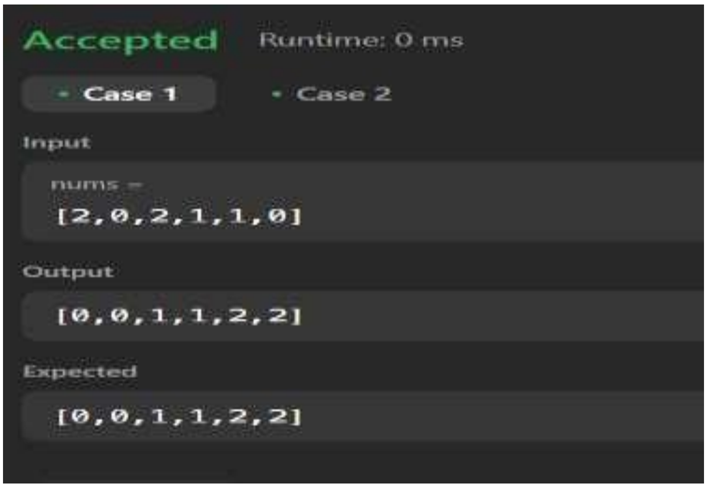
```
3
```

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

Input

```
nums =
[2,0,2,1,1,0]
```

Output

```
[0,0,1,1,2,2]
```

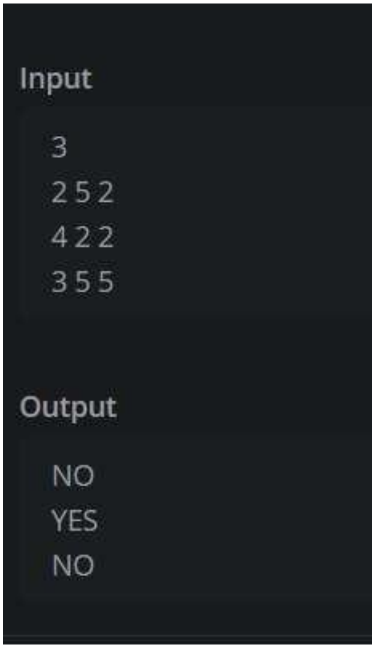
Expected

```
[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
```

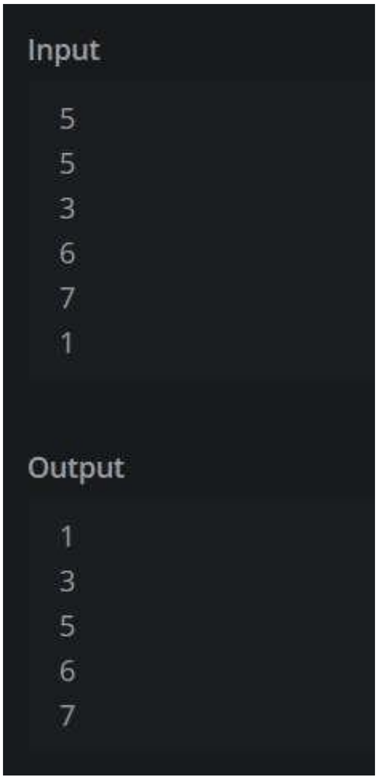
Que-4: Turbo Sort

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;
```

}

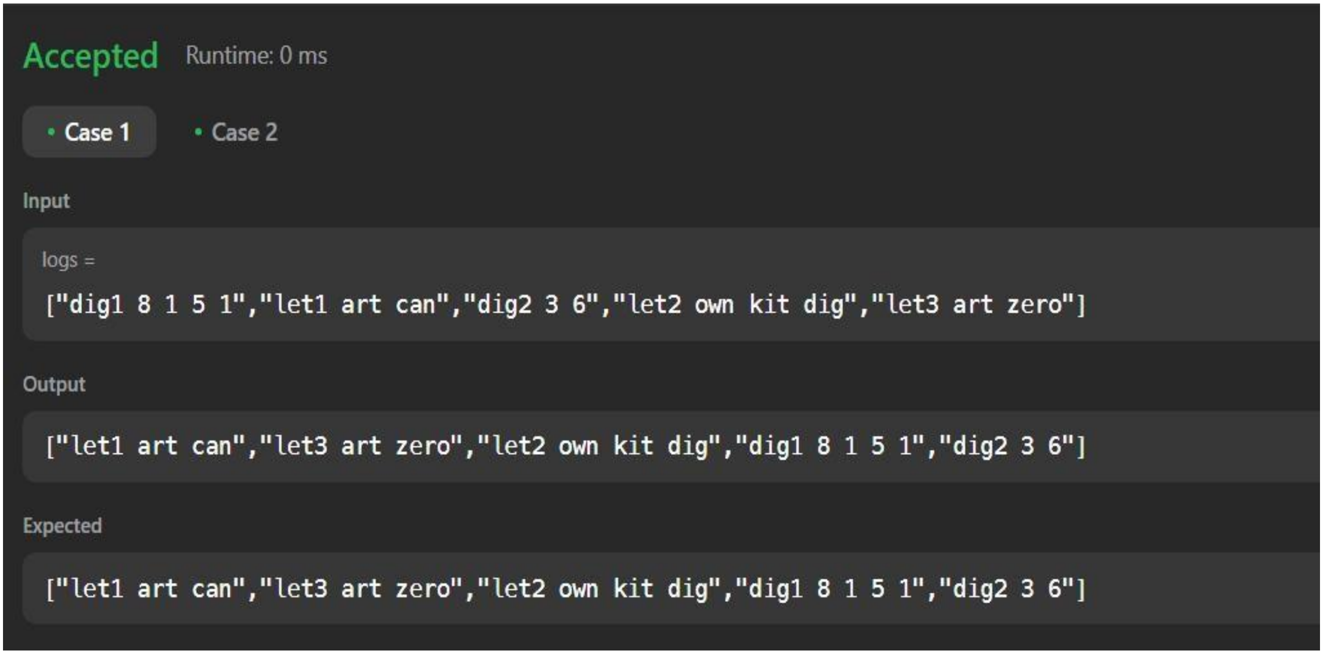
Output:



```
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"]
```