Experiment Title-1

Student Name: SANSKAR AGRAWAL
UID: 20BCS5914
Branch: CSE
Section/Group: 806/B
Semester: 5th
Subject Name: Competitve Coding Lab

Question 1:

1. Aim/Overview of the practical: Array

2.Task to be done/ Which logistics used:

Given a square matrix, calculate the absolute difference between the sums of its diagonals.

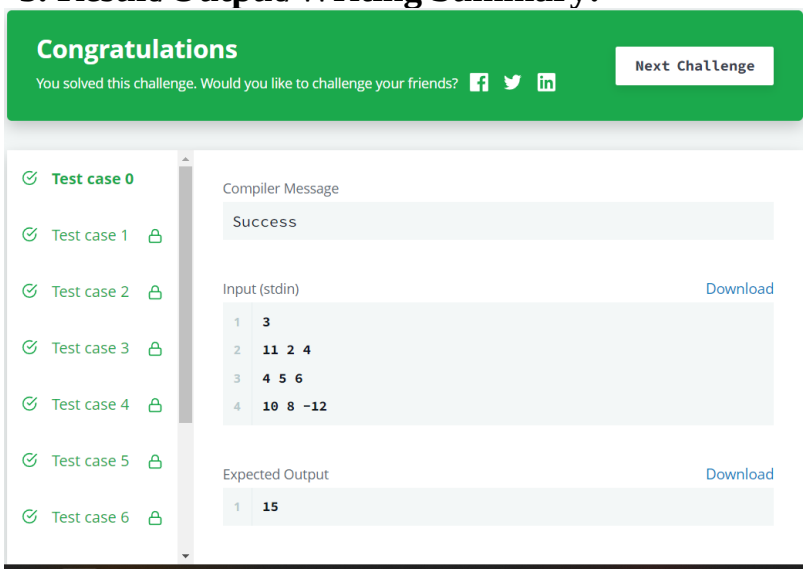
Sample Input
3
11 2 4
4 5 6
10 8 -12
Sample Output
15

2. Steps for experiment/practical/Code:

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

using namespace std;

int main() {

int N;
cin >> N;

int i, j;

int sumdiagnal1 = 0;
int sumdiagnal2 = 0;
```

```
for(i = 0; i < N; i++){
for(j = 0; j< N; j++)
{
int no;
cin >> no;
if(i == j)
sumdiagnal1 += no;
if(i+j == N-1)
sumdiagnal2 += no;
}
}

cout << abs(sumdiagnal1 - sumdiagnal2);//to take only positive values used abs()
return 0;
}
```

3. Result/Output/Writing Summary:



Question 2:

1. Aim/Overview of the practical: Simple array sum.

2. Task to be done/ Which logistics used: Given an array of integers, find the sum of its elements.

For example, if the array ar=[1,,2,3],1+2+3=6 , so return 6.

3. Steps for experiment/practical/Code:

```
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;


int main() {

   unsigned long long int N, Sum = 0, i, Num;

   cin>>N;

   for (i = 1 ; i <= N ; i++)
      {
      cin>> Num;
      Sum += Num;
   }

   cout<<Sum<<endl;

   return 0;
}
```

4. Result/Output/Writing Summary: