

Experiment Title-1

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Semester: 5th

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Section/Group: 806/B

Subject Name: Competitive 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 sumdiagonal1 = 0;
```

```
int sumdiagonal2 = 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:

Congratulations
You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#) [Next Challenge](#)

✔ Test case 0

✔ Test case 1

✔ Test case 2

✔ Test case 3

✔ Test case 4

✔ Test case 5

✔ Test case 6

Compiler Message

Success

Input (stdin) [Download](#)

1	3
2	11 2 4
3	4 5 6
4	10 8 -12

Expected Output [Download](#)

1	15
---	----

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:

Congratulations

You solved this challenge. Would you like to challenge your friends? [f](#) [t](#) [in](#)

[Next Challenge](#)

✓ Test case 0

Compiler Message

Success

✓ Test case 1 [🔒](#)

✓ Test case 2 [🔒](#)

Input (stdin)

[Download](#)

1	6
2	1 2 3 4 10 11

Expected Output

[Download](#)

1	31
---	----



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