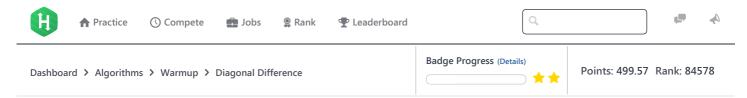
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# Diagonal Difference



Problem Submissions Leaderboard Discussions Editorial

Given a square matrix of size  $N \times N$ , calculate the absolute difference between the sums of its diagonals.

#### **Input Format**

The first line contains a single integer, N. The next N lines denote the matrix's rows, with each line containing N space-separated integers describing the columns.

#### **Constraints**

•  $-100 \le Elements$  in the matrix  $\le 100$ 

#### **Output Format**

Print the absolute difference between the two sums of the matrix's diagonals as a single integer.

### **Sample Input**

## **Sample Output**

15

#### **Explanation**

The primary diagonal is:

11 5 -12

Sum across the primary diagonal: 11 + 5 - 12 = 4

The secondary diagonal is:

5

Sum across the secondary diagonal: 4 + 5 + 10 = 19Difference: |4 - 19| = 15

**Note:** |x| is absolute value function

† ¥ in

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Max Score:10
Difficulty: Easy

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More

```
C++14
 Current Buffer (saved locally, editable) & • •
                                                                                                                                *
 1 ▼ #include <cmath>
 2 #include <iostream>
 3 using namespace std;
 4 ▼ int main() {
 5 ₹
         int num=0, Mat[100][100], Sum1=0, Sum2=0;
 6
 7
         for(int r=0; r<num; ++r)</pre>
 8
              for(int c=0; c<num; ++c)</pre>
                            cin>>Mat[r][c];
 9 ▼
10
        for(int r=0; r<num; ++r)</pre>
11
12 ▼
           for(int c=0; c<num; ++c)</pre>
13
                 if(r==c) Sum1=Mat[r][c]+Sum1;
14 ▼
15 ▼
           Sum2=Sum2+Mat[r][num-r-1]; // secondary diagonal
16
17
         cout<<abs(Sum1-Sum2)<<endl;</pre>
18
19
         return 0;
20
    }
                                                                                                                       Line: 1 Col: 1
                                                                                                          Run Code
                                                                                                                        Submit Code
                       Test against custom input
1 Upload Code as File
```

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