

## **Diagonal Difference**



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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.

#### **Output Format**

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

#### Sample Input

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

#### Sample Output

15

### Explanation

```
The primary diagonal is:
11
5
-12
```

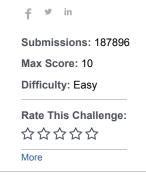
Sum across the primary diagonal: 11 + 5 - 12 = 4

The secondary diagonal is:

5

Sum across the secondary diagonal: 4 + 5 + 10 = 19

Difference: |4 - 19| = 15



Current Buffer (saved locally, editable) & 49

Python 2 ~

```
#!/bin/python
2
3
    import sys
4
5
6
    n = int(raw_input().strip())
7
    a = []
8
    dig = 0
    indig = 0
9
10
   final = 0
11 ▼ for a_i in xrange(n):
12
        a_temp = map(int,raw_input().strip().split(' '))
13
        a.append(a_temp)
14
15 ▼ for i in range(0,n):
16 ▼
        for j in range(0,n):
17
             if i==j:
                 dig+=a[i][j]
18
            if i+j==n-1:
19
                 indig+=a[i][j]
20
21
22
    print(abs(dig-indig))
23
                                                                                                  Line: 19 Col: 20
```

**1** Upload Code as File

☐ Test against custom input

Run Code

Submit Code

# Congrats, you solved this challenge!

- ✓ Test Case #0
- ✓ Test Case #3
- ✓ Test Case #6
- ✓ Test Case #9

- ✓ Test Case #1
- ✓ Test Case #4
- ✓ Test Case #7
- ✓ Test Case #10

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

Next Challenge

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