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Diagonal Difference

by [vatsalchanana](#)

Problem

Submissions

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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:

```
 4
 5
10
```

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

Difference: $|4 - 19| = 15$

[f](#) [t](#) [in](#)

Submissions: 187896

Max Score: 10

Difficulty: Easy

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Current Buffer (saved locally, editable)

Python 2



```
1  #!/bin/python
2
3  import sys
4
5
6  n = int(raw_input().strip())
7  a = []
8  dig = 0
9  indig = 0
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:
18             dig+=a[i][j]
19         if i+j==n-1:
20             indig+=a[i][j]
21
22 print(abs(dig-indig))
23
```

Line: 19 Col: 20

 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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