



# Diagonal Difference ☆

## Problem

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

For example, the square matrix *arr* is shown below:

```
1 2 3
4 5 6
9 8 9
```

The left-to-right diagonal =  $1 + 5 + 9 = 15$ . The right to left diagonal =  $3 + 5 + 9 = 17$ . Their absolute difference is  $|15 - 17| = 2$ .

### Function description

Complete the *diagonalDifference* function in the editor below. It must return an integer representing the absolute diagonal difference.

*diagonalDifference* takes the following parameter:

- arr*: an array of integers .

### Input Format

The first line contains a single integer, *n*, the number of rows and columns in the matrix *arr*.

Each of the next *n* lines describes a row, *arr[i]*, and consists of *n* space-separated integers *arr[i][j]*.

### Constraints

- $-100 \leq arr[i][j] \leq 100$

### Output Format

Print the absolute difference between the sums of the matrix's two 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:  $|4 - 19| = 15$

**Note:**  $|x|$  is the absolute value of *x*

Author

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Difficulty

Easy

Max Score

10

Submitted By

817225

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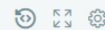


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java 8



```
41         Stream.of(bufferedReader.readLine().replaceAll("\\s+$", "").split("
42     ))
43         .map(Integer::parseInt)
44         .collect(toList())
45     } catch (IOException ex) {
46         throw new RuntimeException(ex);
47     }
48 });
49
50 int result = Result.diagonalDifference(arr);
51
52 bufferedWriter.write(String.valueOf(result));
53 bufferedWriter.newLine();
54
55 bufferedReader.close();
56 bufferedWriter.close();
57 }
58 }
59
```

Line: 59 Col: 1

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