# **Diagonal Difference**



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.

diagonalDifference takes the following parameter:

• int arr[n][m]: an array of integers

#### Return

• int: the absolute diagonal difference

## **Input Format**

The first line contains a single integer, n, the number of rows and columns in the square matrix arr. Each of the next n lines describes a row, arr[i], and consists of n space-separated integers arr[i][j].

#### **Constraints**

•  $-100 \le arr[i][j] \le 100$ 

## **Output Format**

Return 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