

# 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 with the following parameter:

- *int arr[n][m]*: a 2-D array of integers

### Return

- *int*: the absolute difference in sums along the diagonals

### 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

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

### Sample Input

STDIN	Function
3	arr[][] sizes n = 3, m = 3
11 2 4	arr = [[11, 2, 4], [4, 5, 6], [10, 8, -12]]
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  $x$ .