Problem E. Diagonal Difference

OS Linux

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

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

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