Problem B. 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 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

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

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