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

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

123

456

989

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

1124

456

108-12

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