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. It must return an integer representing the absolute diagonal difference.

diagonalDifference takes the following parameter:

- arr: an array of integers .

Input Format

The first line contains a single integer, **n**, the number of rows and columns in the 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

Print 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