Given a square matrix, calculate the absolute difference between the sums of its diagonals. For example, the square matrix is shown below:

123

456

989

The left-to-right diagonal = . The right to left diagonal = . Their absolute difference is .

Function description

Complete the 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, , the number of rows and columns in the square matrix . Each of the next lines describes a row, , and consists of space-separated integers .

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

 $4\ 5\ 6$

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:

5 10

Sum across the secondary diagonal: 4 + 5 + 10 = 19

Difference: |4 - 19| = 15

Note: |x| is the absolute value of x