https://panchalprogrammingacademy.github.io/course-problem-deck/#/problem/60153dd93e9f44001552778d

Matrix Sum I

25 POINTS

Given a matrix *A* of order *(m, n)*. Find the sum of the following:

- sum of all elements of the matrix
- sum of all upper half elements of the matrix
- sum of all lower half elements of the matrix
- sum of all diagonal elements of the matrix

Input format:
The first line of input contains two space separated integer m and n
The next m lines each contains n space separated integers

Output format:
Four space separated integers denoting the sum as mentioned above in the same order

Constraints:
(i) $0 \leq m, n \leq 100$
(ii) $0 \leq A[i][j] \leq 10$
(iii) $m = n$

Test Case - 1
3 3
1 4 4
3 7 8
7 8 7
49 16 18 15

Explanation
Sum of all elements = 1 + 4 + 4 + 3 + 7 + 8 + 7 + 8 + 7 = 49
Sum of upper half elements = 4 + 4 + 8 = 16
Sum of lower half elements = 3 + 7 + 8 = 18
Sum of diagonal elements = 1 + 7 + 7 = 15

Problem tags:

THE COMPLETE C COURSE EASY ARRAY MATRIX