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Problem Statement #71	Given a matrix of N rows and M columns, print it row by row. Firstly print 0th row, then 1st row, 2nd row and so on
Problem Constraint	1 <= N <= 100 1 <= M <= 100 1 <= mat[i][j] <= 10000
Example Input	3 4 10 20 30 40 50 60 70 80 90 100 110 120
Example Output	10 20 30 40 50 60 70 80 90 100 110 120

Problem Statement #72	Given a matrix of N rows and M columns, print it column by column. Firstly print 0th column, then 1st column, 2nd column and so on.
Problem Constraint	1 <= N <= 100 1 <= M <= 100 1 <= mat[i][j] <= 10000
Example Input	3 4 10 20 30 40 50 60 70 80 90 100 110 120
Example Output	10 50 90 20 60 100 30 70 110 40 80 120

Problem Statement #73	You are given two matrices A & B of equal dimensions and you have to check whether two matrices are equal or not. **NOTE:** Both matrices are equal if A[i][j] == B[i][j] for all i and j in the given range. Return 1 if both matrices are equal or return 0
Problem Constraint	1 <= A.size(), B.size() <= 1000 1 <= A[i].size(), B[i].size() <= 1000 1 <= A[i][j], B[i][j] <= 1000
Example Input	A = [[1, 2, 3],[4, 5, 6],[7, 8, 9]] B = [[1, 2, 3],[4, 5, 6],[7, 8, 9]]
Example Output	1

Problem Statement #74	Write a program to input an integer N and a N*N matrix Mat from user and print the matrix in wave form (column wise)
Problem Constraint	$1 <= N <= 10^3$ $0 <= Mat[i][j] <= 10^9$
Example Input	3 4 1 2 7 4 4 3 7 4
Example Output	4 7 3 7 4 1 2 4 4

Problem Statement #75	You are given an integer matrix mat and you have to print the elements of the matrix in wave form (row wise)
Problem Constraint	1 <= N <= 10^3 0 <= Mat[i][j] <= 10^9
Example Input	[[4, 1, 2], [7, 4, 4], [3, 7, 4]]
Example Output	4 1 2 4 4 7 3 7 4

Problem Statement #76	You are given a 2D integer matrix A, return a 1D integer array containing row-wise sums of original matrix.
Problem Constraint	1 <= A.size() <= 10^3 1 <= A[i].size() <= 10^3 1 <= A[i][j] <= 10^3
Example Input	[1,2,3,4] [5,6,7,8] [9,2,3,4]
Example Output	[10,26,18]

Problem Statement #77	Given a 2D integer array C[][] of A rows and B columns. Return an integer array of size B that represents the sums of the columns of the 2D array C.
Problem Constraint	1 <= A,B <= 10^3 1 <= C[i][j] <= 10^3
Example Input	A = 3 B = 2 C = [[4, 1], [1, 3], [6, 2]]
Example Output	[11, 6]

Problem Statement #78	You are given two matrices A & B of same size, you have to return another matrix which is the sum of A and B
Problem Constraint	1 <= A.size(), B.size() <= 1000 1 <= A[i].size(), B[i].size() <= 1000 1 <= A[i][j], B[i][j] <= 1000
Example Input	A = [[1, 2, 3], [4, 5, 6], [7, 8, 9]] B = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]
Example Output	[[10, 10, 10], [10, 10, 10], [10, 10, 10]]

Problem Statement #79	You are given two integer matrices A and B having same size (Both having same number of rows (N) and columns (M). You have to subtract matrix B from A and return the resultant matrix. (i.e. return the matrix A - B)
Problem Constraint	1 <= N, M <= 103 -109 <= A[i][j], B[i][j] <= 109
Example Input	A = [[1, 2, 3], [4, 5, 6], [7, 8, 9]] B = [[9, 8, 7], [6, 5, 4], [3, 2, 1]]
Example Output	[[-8, -6, -4], [-2, 0, 2], [4, 6, 8]]

Problem Statement #80	Given a 2D array A of N rows and M columns. Find value of largest element in each row.
Problem Constraint	There are 1 lines in the input First 2 integers R, C are the number of rows and columns. Then R * C integers follow corresponding to the rowwise numbers in the 2D array
Example Input	2 2 1 2 1 3
Example Output	[2, 3]

Problem Statement #81	You are given a N X N square integer matrix A. You have to tell whether A is an identity matrix or not. Identity matrix is a special square matrix whose main diagonal elements are equal to 1 and all other elements are 0.
Problem Constraint	$2 <= N <= 10^3$ A[i][j] equals 0 or 1.
Example Input	[[0, 0, 1], [0, 1, 0], [1, 0, 0]]
Example Output	0

Problem Statement #82	You are given a matrix A, you have to return another matrix which is the transpose of A. NOTE: Transpose of a matrix A is defined as - AT[i][j] = A[j][i] ; Where 1 ≤ i ≤ col and 1 ≤ j ≤ row. The tranpose of a matrix switches the element at (i, j)th index to (j, i)th index, and the element at (j, i)th index to (i, j)th index.
Problem Constraint	1 <= A.size() <= 1000 1 <= A[i].size() <= 1000 1 <= A[i][j] <= 1000
Example Input	A = [[1, 2, 3],[4, 5, 6],[7, 8, 9]]
Example Output	[[1, 4, 7], [2, 5, 8], [3, 6, 9]]

Problem Statement #83	You are given a matrix A, you have to return an array containing sum of each row elements followed by sum of each column elements of the matrix. NOTE: If the matrix given is of size (N x M), then the array you return would be of size (N + M), where first N elements contain the sum of each N rows, and the next M elements contain the sum of each M columns. You have to return a 1D list of integers after doing required operations.
Problem Constraint	1 <= |A| <= 10^5 0 <= A[i] <= 10^9
Example Input	A = [[1, 2],[4, 5],[8, 9]]
Example Output	[3, 9, 17, 13, 16]

Problem Statement #84	You are given a matrix A and and an integer B, you have to perform scalar multiplication of matrix A with an integer B.
Problem Constraint	1 <= A.size() <= 1000 1 <= A[i].size() <= 1000 1 <= A[i][j] <= 1000 1 <= B <= 1000
Example Input	A = [[1, 2, 3],[4, 5, 6],[7, 8, 9]] B = 2
Example Output	[[2, 4, 6], [8, 10, 12], [14, 16, 18]]

Problem Statement #85	You are given a N X N integer matrix. You have to find the sum of all the main diagonal elements of A. Main diagonal of a matrix A is a collection of elements A[i, j] such that i = j. **Return an integer denoting the sum of main diagonal elements**
Problem Constraint	1 <= N <= 103 -1000 <= A[i][j] <= 1000
Example Input	There are 1 lines in the input. First 2 integers R, C are the number of rows and columns. Then R * C integers follow corresponding to the row-wise numbers in the 2D array A. 3 3 1 -2 -3 -4 5 -6 -7 -8 9
Example Output	15

Problem Statement #86	You are given two integer matrices A(having M X N size) and B(having N X P). You have to multiply matrix A with B and return the resultant matrix. (i.e. return the matrix AB).
Problem Constraint	1 <= M, N, P <= 100 -100 <= A[i][j], B[i][j] <= 100
Example Input	There are 2 lines in the input First line: Two integers R, C are the number of rows and columns. Then R * C integers follow corresponding to the rowwise numbers in the 2D array. Second line: Two integer R, C are the number of rows and columns. Then R * C integers follow corresponding to the rowwise numbers in the 2D array. 2 2 1 2 3 4 2 2 5 6 7 8
Example Output	[[19, 22], [43, 50]]

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