HOMEWORK 3

Write a program to transpose a matrix. The transpose of a matrix is a new matrix whose rows are the columns of the original. (This makes the columns of the new matrix the rows of the original)

Input

The program will read from the standard input:
- The number of rows, n, and the number of columns of the matrix, m. (n, m >= 2)
- The next n lines, each line contains m integer numbers describing the matrix

Output

The program will output:
- The transpose of the input matrix

Note

- You have to use **malloc** to dynamically allocate the memory and assign the value to the matrix.
- The matrix variable must be a pointer to pointer integer. (int **matrix)

Example:

Input	Output
2 2 1 2 3 4	1 3 2 4
2 3 1 2 3 4 5 6	1 4 2 5 3 6