Assignment 5: arrays

A logical matrix is a matrix which all its elements are either 0 or 1. We define logical multiplication of matrices A and B by the operation defined below, where "·" is the logical AND operation, and "+" is the logical OR operation.

$$c[i][j] = \sum_{k=0}^{SIZE-1} a[i][k] \cdot b[k][j]$$

In this assignment you will create two 5x5 logical matrices and find the corresponding matrix which will be created from "multiply" these 2 matrices.

1. Define global SIZE equals to 5
2. Write a function that gets a matrix reference and reads the input to the matrix from the user. If an integer is none zero replace it by 1. If the user did not enter enough values before end of line, the remaining cells in the matrix will be populated with zeros.
   Function signature: void read_mat(int mat[][SIZE])
3. Write a function that "multiplies", as defined above, two matrices and enters the results into a third matrix with suitable dimensions.
   Function signature: void mult_mat(int mat1[][SIZE],int mat2[][SIZE], int result_mat[][SIZE])
4. Write a function which prints a matrix into screen.
   Function signature: void print_mat(int mat[][SIZE])
5. Write the main program which uses the functions above. The program reads the matrices values from user, multiplies them and prints the 3 matrices to screen.