Problem 7

6 Points

Matrix Reloaded

Write a program to determine if a matrix of integers with several "blanks" can have those blanks filled in to form a magic square. (For a description of magic squares, refer to the introduction of the problem titled *Matrix*.)

Input

The input will consist of up to 20 square matrices of dimension 1x1 to 10x10. The first line of the input file will contain an integer indicating the total number of matrices in the input. For each matrix, there will be a single line containing an integer, n, indicating the size of the matrix ($n \times n$). The next n lines will contain n integers separated by spaces; this represents one of the matrices that is to be tested. Values of 0 in the matrix represent the blanks that need to be filled in. There will be no more than three values of 0 in any one input matrix.

Output

For each matrix in the input, output a single line. If the matrix can be made into a true magic square by filling in the blanks in any way, output, "This could be a magic square." Otherwise, output, "This can't be a magic square." (Don't forget the periods!)

Example Input File

Example Output To Screen

This could be a magic square. This can't be a magic square.