



Problem A. Sudoku

Time limit: 1 second

Memory limit: 256 megabytes

input: standard input

output: standard output

Sudoku(数独)is a logic-based combinatorial number-placement puzzle, which appeals to Patricky.

In classic Sudoku, the objective is to fill a 9×9 grid with digits so that each column, each row, and each of the nine 3×3 subgrids that compose the grid (also called “boxes”, “blocks”, or “regions”) contain all of the digits from 1 to 9. The puzzle setter provides a partially completed grid, which for a well-posed puzzle has a single solution.

Patricky didn't mean to make you solve this problem for the given puzzle. He will show you some sudoku he completed recently. Your task is to determine whether Patricky won.

Input

9 rows, each of them contains 9 numbers between 1 and 9, seperated by spaces.

Output

Print “YES” in one line if Patricky won, or “NO” to report he failed (with no quotation marks).

Example

standard input	standard output
5 3 4 6 7 8 9 1 2 6 7 2 1 9 5 3 4 8 1 9 8 3 4 2 5 6 7 8 5 9 7 6 1 4 2 3 4 2 6 8 5 3 7 9 1 7 1 3 9 2 4 8 5 6 9 6 1 5 3 7 2 8 4 2 8 7 4 1 9 6 3 5 3 4 5 2 8 6 1 7 9	YES