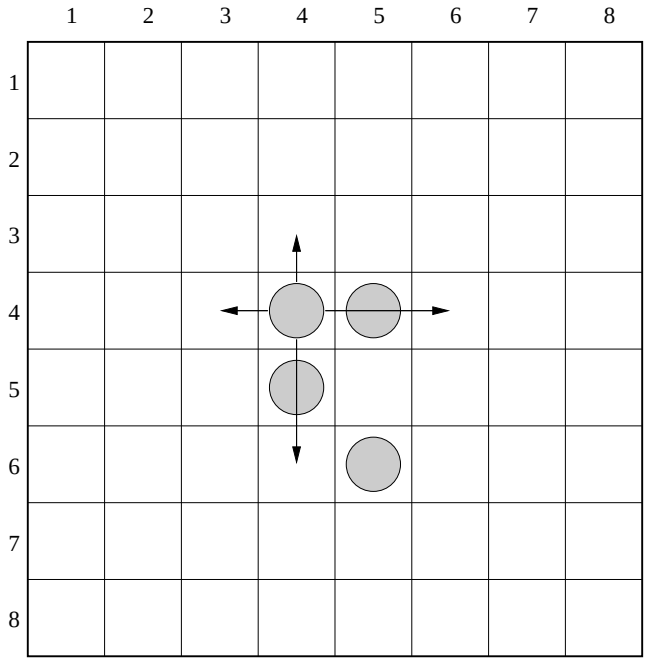
Problem F
Solitaire

ACM Central European Programming Contest, Warsaw 2002, Poland

Solitaire is a game played on a chessboard 8x8. The rows and columns of the chessboard are numbered from 1 to 8, from the top to the bottom and from left to right, respectively.

There are four identical pieces on the board. In one move it is allowed to:

- move a piece to an empty neighboring field (up, down, left or right),
- jump over one neighboring piece to an empty field (up, down, left or right).



Exactly 4 moves are allowed for each piece in the figure above. As an example let's consider a piece placed in the row 4, column 4. It can be moved one row up, two rows down, one column left or two columns right.

Task

Write a program that:

- reads two chessboard configurations from the standard input,
- verifies whether the second one is reachable from the first one in at most 8 moves,
- writes the result to the standard output.

Input

Each of two input lines contains 8 integers $a_1, a_2, \ldots, a_8$ separated by single spaces and describes one configuration of pieces on the chessboard. Integers a_{2j-1} and a_{2j} $(1 \leq j \leq 4)$ describe the position of one piece — the row number and the column number respectively.

Output

The output should contain one word YES if the configuration described in the second input line is reachable from the configuration described in the first input line in at most 8 moves, and one word NO otherwise.

Example

For the input:

```
4 4 4 5 5 4 6 5
2 4 3 3 3 6 4 6
```

the correct answer is:

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YES
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