

Problem D. King's move

The chess king moves horizontally, vertically and diagonally, but only 1 square. Given two different squares of the chessboard, determine if the king can get from the first square to the second in one move.



Input data

The program receives as input four numbers from 1 to 8 each, specifying the column number and line number, first for the first cell, then for the second cell.

Output

The program should output YES if it is possible to get to the second one from the first cell by the king's move, or NO otherwise.

Examples of input data

if change of first coordinate is 0 or 1 or -1 and
change of second coordinate is 0 or 1 or -1

abs(column - column2) <=1 && abs(row - row2) <=1 && (column - column2 != 0 || row - row2) != 0

```
4  
4  
5  
5  
output  
YES  
  
int column, row, column2, row2;  
  
std::cin >> column >> row >> column2 >> row2;  
  
if ((column - column2 == 1 || column - column2 == 0 || column - column2 == -1) && (row - row2 == 1 || row - row2 == 0 || row - row2 == -1) && (column - column2 != 0 || row - row2 != 0))  
std::cout << "Yes" << std::endl;
```

```
else  
{  
    std::cout << "No." << std::endl;  
}
```

Boolean algebra

A*(B+C)=A*B+A*C
A&&(B||C)=A&&B||A&&C

$$\begin{aligned} !(A \mid\mid B) &= !A \&\& !B \\ !(A \&\& B) &= !A \mid\mid !B \\ (a+b+c)*(x+y+z) &= ax+ay+az+bx+by+bz+cx+xy+cz \\ A \mid\mid B \&\& C &= (A \mid\mid B) \&\& (A \mid\mid C) \\ A + BC &= (A+B)(A+C) \end{aligned}$$