Task 1

It is required to determine whether the rook, standing on the square with the specified coordinates (row number and column number), beats a piece standing on another indicated square.

Input:
Four numbers are entered: the coordinates of the rook (two numbers «x1», «y1») and the coordinates of another piece (two numbers, «x2», «y2»), each number is entered on a separate line. Coordinates are integers ranging from 1 to 8.

Output:
It is required to print the word YES if the rook can beat a piece in 1 move and NO otherwise

Examples:

Input
1 1 2 2
Output
NO

Input
1 1 2 1
Output
YES

Task 2

It is required to determine whether the bishop standing on the square with the specified coordinates (row number and column number), beats a piece standing on another specified square.

Input:
Four numbers are entered: the coordinates of the bishop (two numbers «x1», «y1») and the coordinates of another piece (two numbers, «x2», «y2»), each number is entered on a separate line. Coordinates are integers ranging from 1 to 8.

Output:
It is required to print the word YES if the bishop can beat a piece in 1 move and NO otherwise

Examples:

Input
1 1 5 5
Output
YES

Input
3 2 2 2
Output
NO

Task 3

You should solve an equation (ax + b) : (cx + d) = 0

Input:
Four numbers: a, b, c, d; c and d is not equal to 0

Output:
It is necessary to print all integer solutions, if their number is finite, “NO” (without quotes), if there are no integer solutions, and “INF” (without quotes), if there are infinitely many of them.

Examples:

Input
1 1 2 2
Output
NO

Input
2 -4 7 1
Output
2

Task 4

The ice cream parlor sells three balls and five balls. Can you buy exactly «k» balls of ice cream?

Input:
Number «k» (integer, positive)

Output:
The program should print the word YES if under such conditions it is possible to put exactly «k" balls (no more and no less), otherwise it should print NO

Examples:

Input
3
Output
YES

Input
1
Output
NO

Task 5
Roman’s mobile phone only supports transliteration, so he sends messages like "N bochek". For example, "3 bochki" or "1 bochka".

Write a program that chooses the correct word (from "bochka", "bochek", "bochki") depending on N.

Input:
Number N (0 <= N <= 1000)

Output:
Phrase in transliteration (like in examples)

Examples:

Input
1
Output
1 bochka

Input
15
Output
15 bochek

Input
3
Output
15 bochki