Number Line Jumps

HackerRank

You are choreographing a circus show with various animals. For one act, you are given two kangaroos on a number line ready to jump in the positive direction (i.e, toward positive infinity).

- The first kangaroo starts at location $x1$ and moves at a rate of $v1$ meters per jump.
- The second kangaroo starts at location $x2$ and moves at a rate of $v2$ meters per jump.

You have to figure out a way to get both kangaroos at the same location at the same time as part of the show. If it is possible, return `YES`, otherwise return `NO`.

Example
$x1 = 2$
$v1 = 1$
$x2 = 1$
$v2 = 2$

After one jump, they are both at $x = 3$, ($x1 + v1 = 2 + 1$, $x2 + v2 = 1 + 2$), so the answer is `YES`.

Function Description

Complete the function *kangaroo* in the editor below.

kangaroo has the following parameter(s):

- *int x1, int v1*: starting position and jump distance for kangaroo 1
- *int x2, int v2*: starting position and jump distance for kangaroo 2

Returns

- *string:* either `YES` or `NO`

Input Format

A single line of four space-separated integers denoting the respective values of $x1$, $v1$, $x2$, and $v2$.

Constraints

- $0 \leq x1 < x2 \leq 10000$
- $1 \leq v1 \leq 10000$
- $1 \leq v2 \leq 10000$