

# Number Line Jumps

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

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