Number Line Jumps ★

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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

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

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Difficulty	Easy
Max Score	100
Submitted By	11489

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```
1   #!/bin/python3
2
3   import math
4   import os
5   import random
6   import re
7   import sys
8
9   #
10  # Complete the 'kangaroo' function below.
11  #
12  # The function is expected to return a STRING.
13  # The function accepts following parameters:
14  #  1. INTEGER x1
15  #  2. INTEGER v1
16  #  3. INTEGER x2
17  #  4. INTEGER v2
18  #
19
```

```
def kangaroo(x1, v1, x2, v2):
    # Write your code here

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    first_multiple_input = input().rstrip().split()

    x1 = int(first_multiple_input[0])

    v1 = int(first_multiple_input[1])
```

Line: 41 Col: 1

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