**Question:**

<https://www.hackerrank.com/challenges/kangaroo/problem>

**Answer:**

**import** math

**import** os

**import** random

**import** re

**import** sys

*#*[*Number Line Jump explanation*](https://www.youtube.com/watch?v=52R2pLDjUBw&list=PLSIpQf0NbcCltzNFrOJkQ4J4AAjW3TSmA)

**def** kangaroo(x1, v1, x2, v2):

*# Write your code here*

    r = (x2-x1)%(v1-v2)

**if** v1>v2:

**if** r==0:

**return**('YES')

**else**:

**return**('NO')

**else**:

**return**('NO')

**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])

    x2 = **int**(first\_multiple\_input[2])

    v2 = **int**(first\_multiple\_input[3])

    result = kangaroo(x1, v1, x2, v2)

    fptr.write(result + '\n')

    fptr.close()

**def** kangaroo(x1, v1, x2, v2):

*# Write your code here*

**if**(v1==v2):

**return** "YES" **if**(x2==x1) **else** "NO"

    x=(x2-x1)/(v1-v2)

**if**(x.is\_integer() **and** x>0):

**return** "YES"

**else**:

**return** "NO"