

# Heart Smuggler

Dev is a heart smuggler and has stolen the heart of a girl in his class. Dev's class is situated at position  $X$  on a long road. If he reaches his home at position  $Y$  on the road ( $X < Y$ ), he is safe. Unfortunately, the police have found out about Dev's smuggling activity and in an attempt to catch him, they start patrolling the road from position  $C$  to  $D$  ( $C < D$ ). If Dev sets foot on any are between  $C$  and  $D$  he will get caught. Given  $X, Y, C, D$  determine if Dev can reach his home without getting caught by the police.

## Input

Each test case consists of one line denoting four integers ( $X Y C D$ ), separated by single spaces. You can safely assume that ( $X < Y$ ) and ( $C < D$ ).

$0 \leq X, Y, C, D \leq 10^6$

## Output

Print a line saying "YES", if Dev can reach his home safely, else print "NO".

## Example

### Input

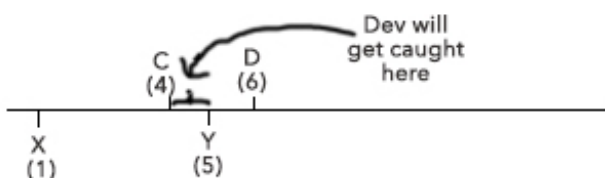
1 5 4 6

### Output

NO

Dev starts at position 1 and has to go to position 5 on the road. Unfortunately, the police are patrolling between positions 4 and 6. Hence Dev will get caught somewhere between position 4 and 5. So the output is "NO".

(Look at the image for better explanation)



## Example 2

### Input

1 5 7 10

### Output

YES

