

HW: Functions Worksheet

Warm up:

What is a function?

$$y = 2x$$

$$f(x) = 4x - 9$$
$$y = 4x - 9$$

$$y = -x + 3$$

HW Solutions

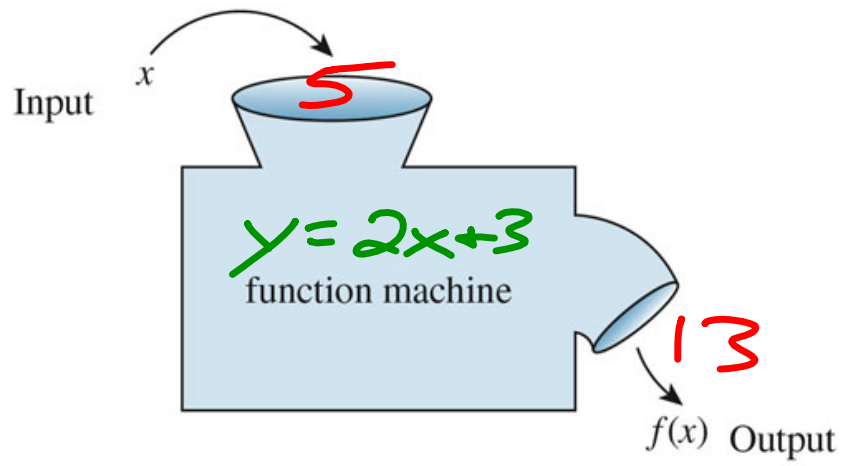
②

$$y = 15x + 35$$

$$15(4) + 35$$

$$60 + 35$$

$$\$95$$



Each input is paired with one and only one output.

each x has 1 y

{(4, 1), (5, -7), (4, 8), (3, -2)}

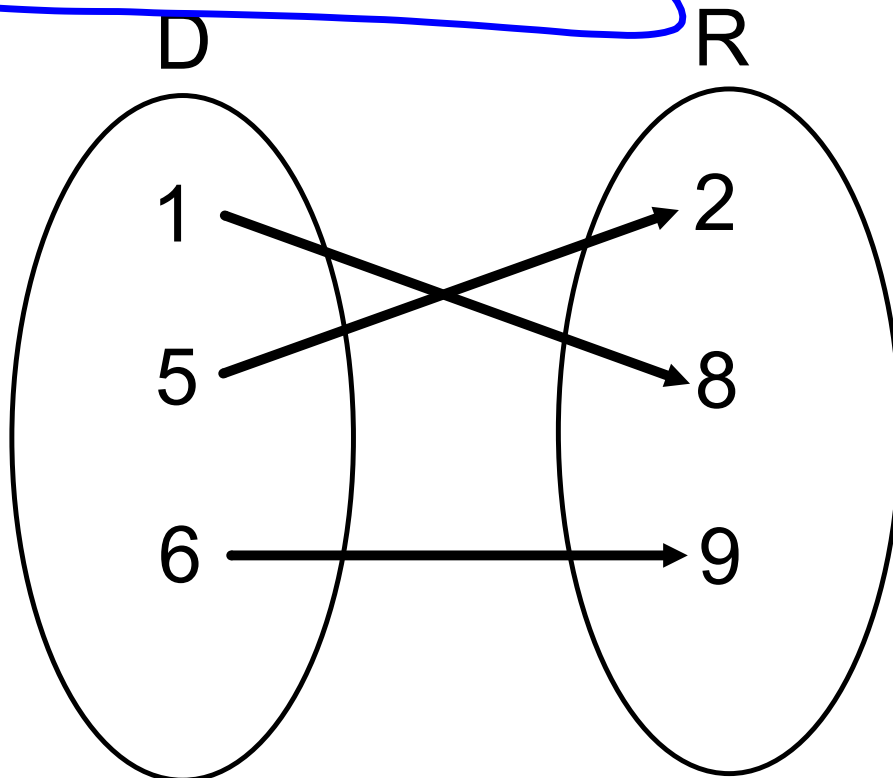
not a function

$\{(9, 5), (6, 2), (3, 5), (-4, -1)\}$

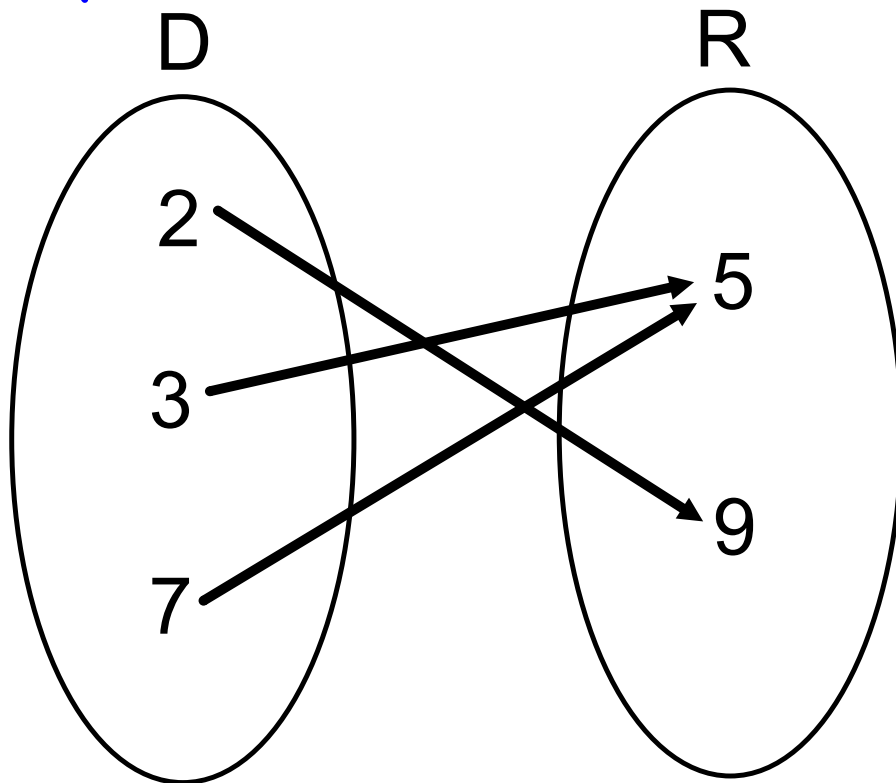
function

Maps

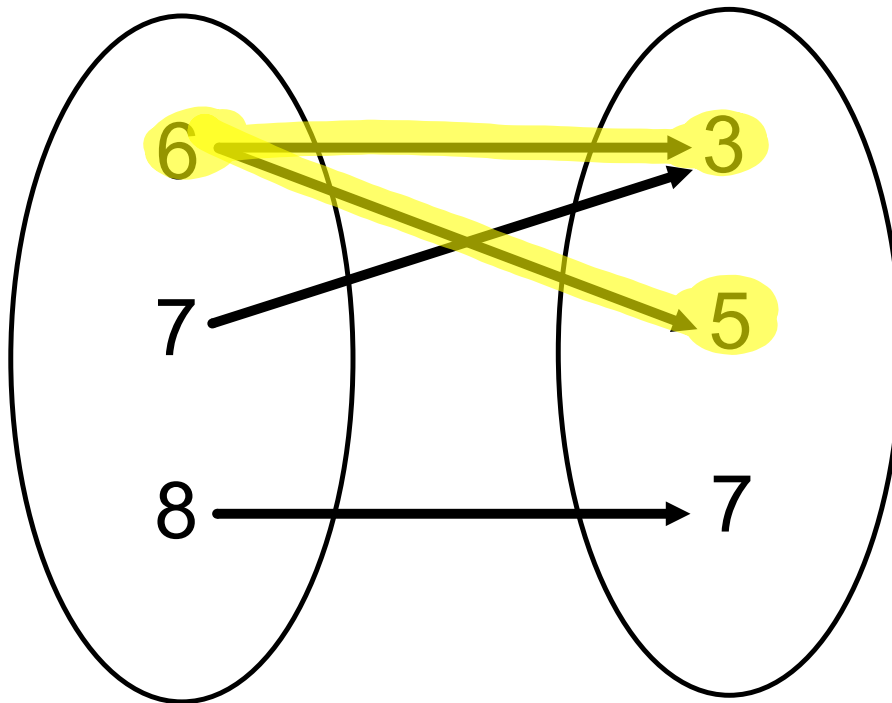
function



function

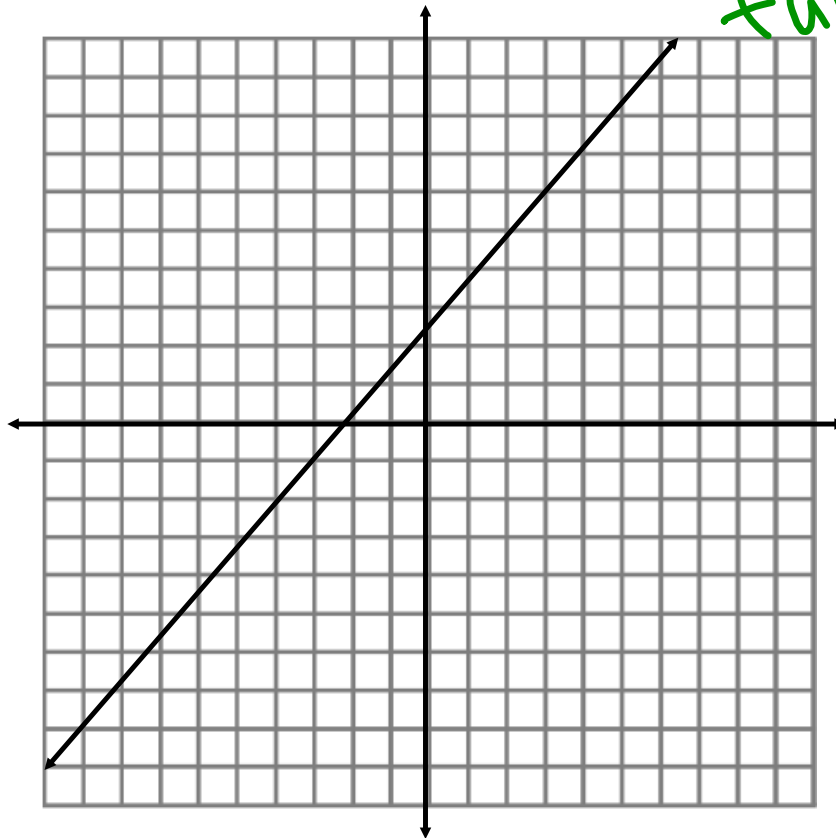


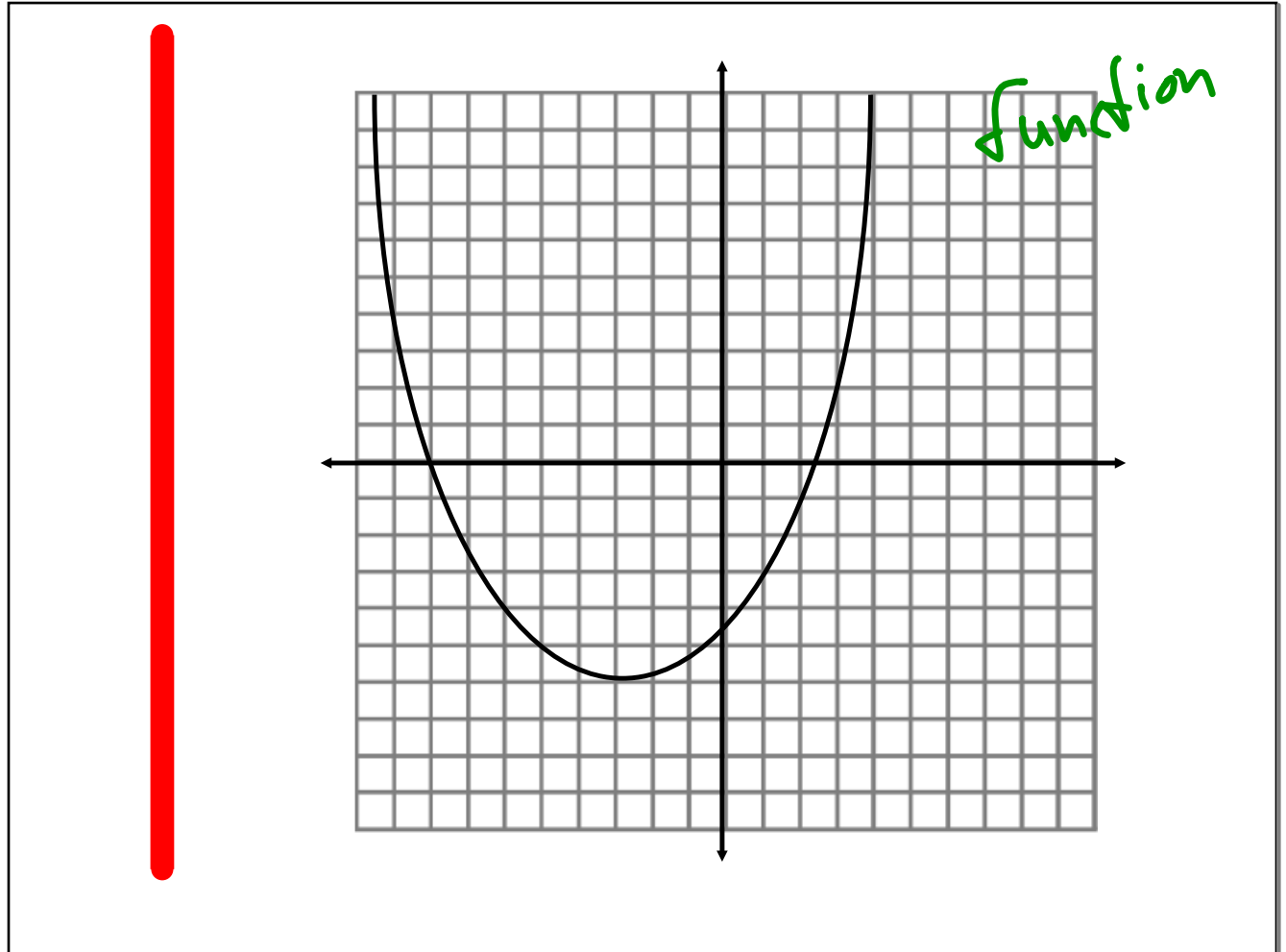
not a function



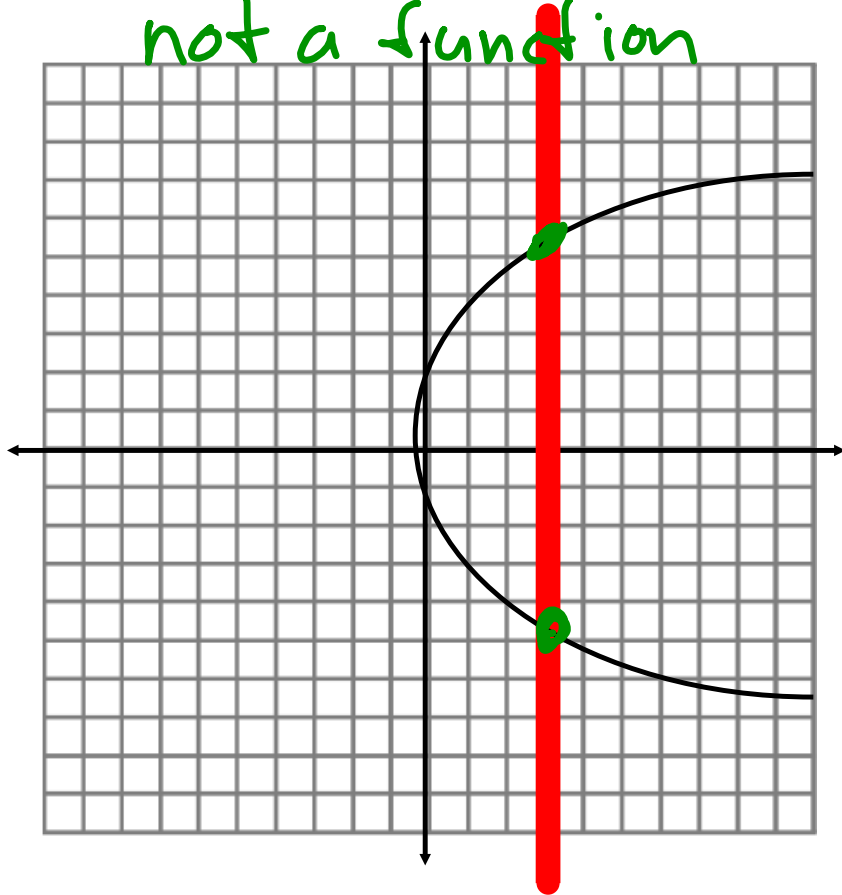
Vertical Line Test

function

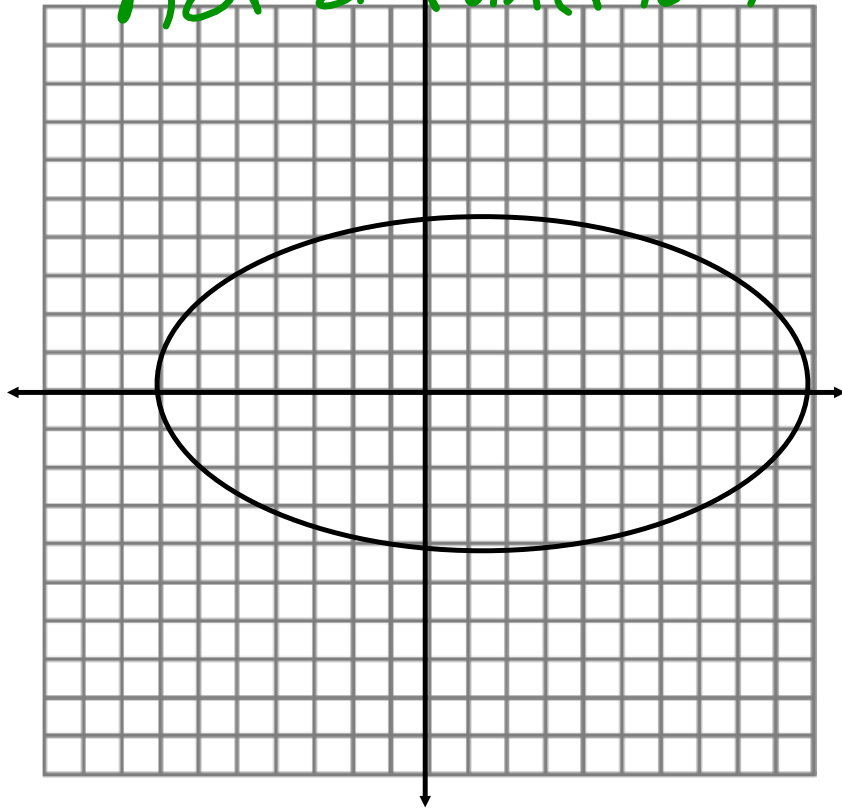




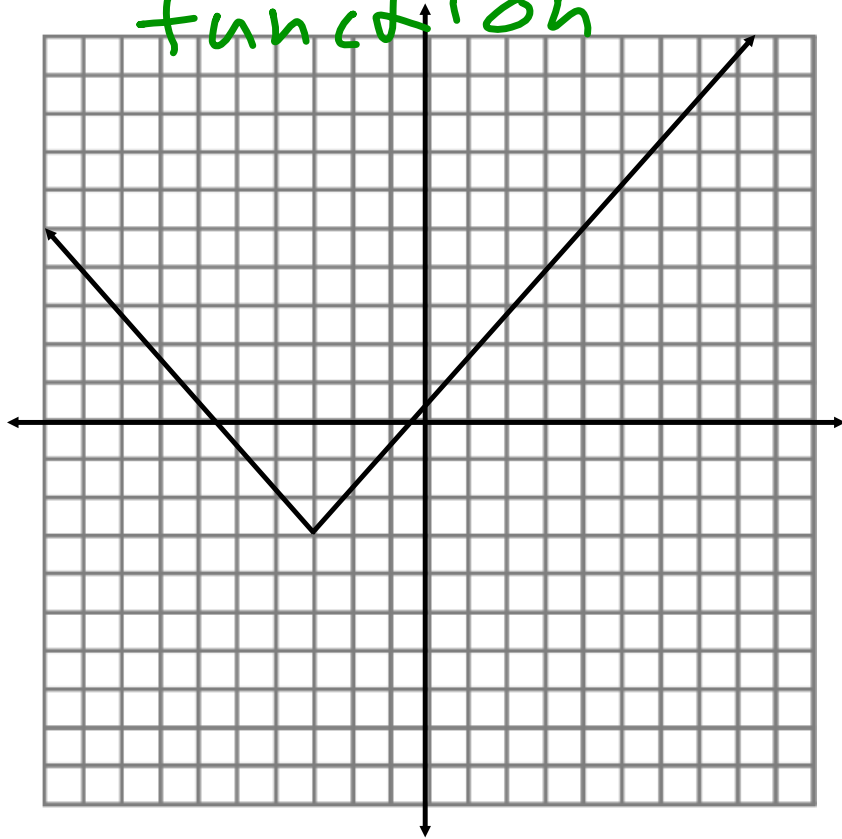
not a function



not a function



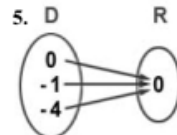
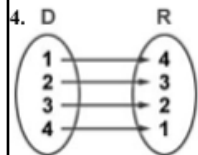
function



Determine whether or not each of the following relations represents a function, then draw a mapping diagram for each relation.

1. $\{(-6, -5), (-5, 5), (5, -6), (6, 6)\}$
2. $\{(3, 6), (-5, 1), (-1, 1), (2, 9)\}$
3. $\{(4, 2), (7, 3), (-1, 0), (4, 5)\}$

Determine whether or not each of the following relations represents a function.



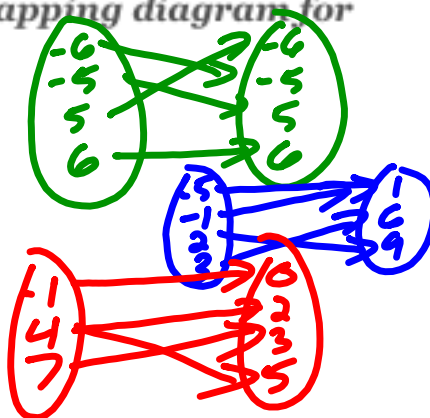
Use the vertical line test to determine if each of the following relations is a function:

8. a) b) c)
9. a) b) c)

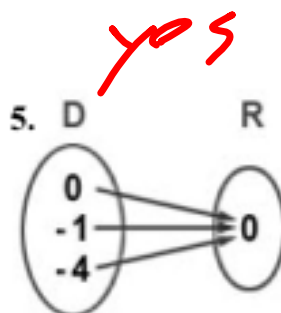
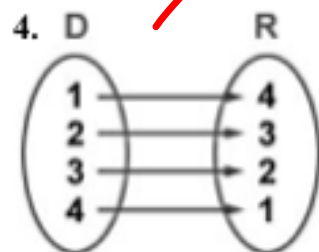
10. Which of the capital letters of the alphabet, when placed on a coordinate system, would represent functions? (Assuming the letters are written right-side-up.)

Determine whether or not each of the following relations represents a function, then draw a mapping diagram for each relation.

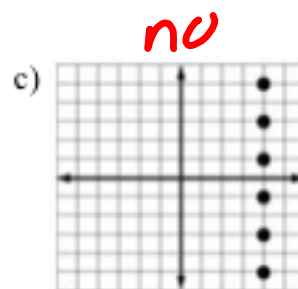
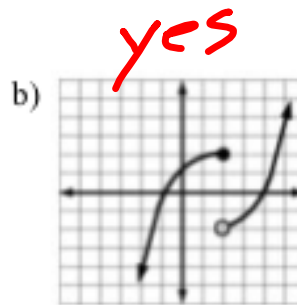
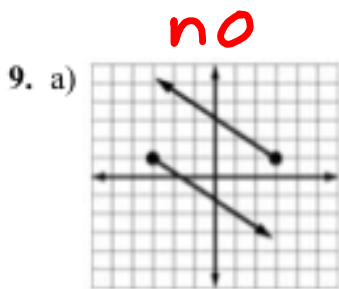
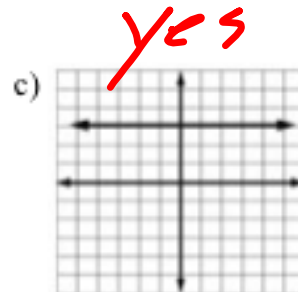
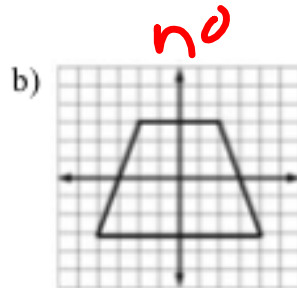
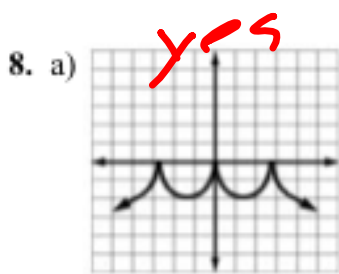
1. $\{(-6, -5), (-5, 5), (5, -6), (6, 6)\}$ *yes*
2. $\{(3, 6), (-5, 1), (-1, 1), (2, 9)\}$ *yes*
3. $\{\underline{4}, 2), (7, 3), (-1, 0), (\underline{4}, 5)\}$ *no*



Determine whether or not each of the following relations represents a function.



Use the vertical line test to determine if each of the following relations is a function:



10. Which of the capital letters of the alphabet, when placed on a coordinate system, would represent functions? (Assuming the letters are written right-side-up.)



