

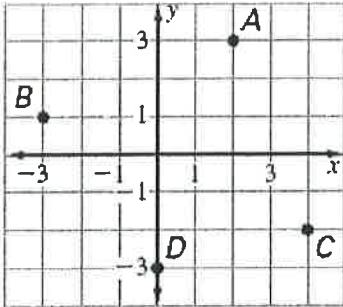
Name EVENS

Date _____

SECTION 4.1 REVIEW

Give the coordinates of the points labeled A, B, C.

1.

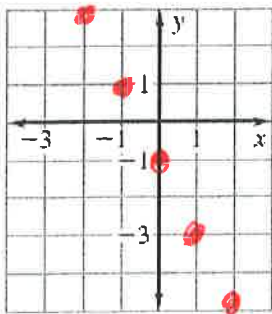


Plot the point in a coordinate plane. Describe the location of the point.

<p>2)</p> <p>a) $P(-4, 1)$ Q2 b) $Q(1, -4)$ Q4 c) $R(-3, -3)$ Q3</p> <div style="display: flex; justify-content: space-between; align-items: center;"> Q2 Q1 </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> Q3 Q4 </div>	<p>3)</p> <p>a) $A(4, 0)$ b) $B(0, -4)$ c) $C(0, 0)$</p>
--	---

Graph the function with the given domain. Create a Table. Then identify the range of the function.

4) $f(x) = -2x - 1$; domain: $-2, -1, 0, 1, 2$ RANGE: $-5, -3, -1, 1, 3$



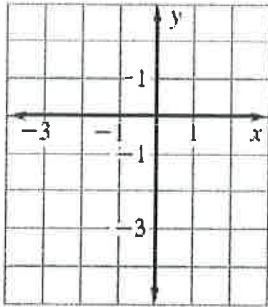
	x	$f(x)$
-2		3
-1		1
0		-1
1		-3
2		-5

STUDY TIP FOR CHAPTER 4 TEST

Graph the function with the given domain. Create a Table. Then identify the range of the function.

5) $f(x) = -3$; domain: $-4, 0, 3$

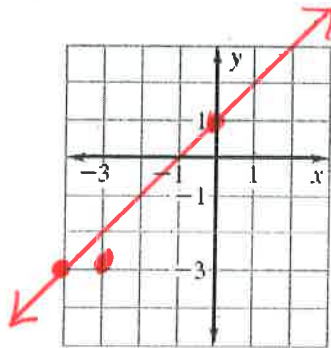
RANGE: _____



6) $f(x) = \frac{3}{4}x + 1$; domain: $-4, 0, 4$

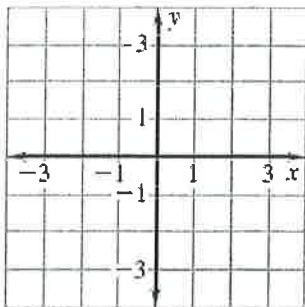
RANGE: $y = -3, 1, 4$

x	$f(x)$
-4	-3
0	1
4	4



7) $f(x) = -\frac{1}{2}x + 3$; domain: $-2, 0, 2$

RANGE: _____



SECTION 4.2 REVIEW

Determine if either point lies on the graph of the line.

1. $2x + y = 8$

a (8, -12)

b (-2, 12)

2. $-x - 3y = 12$

a (9, 1) N.S.

b (-6, -2) SOLUTION

(9, 1)

$-9 - 3(1) = 12$

$-12 \neq 12$

(-6, -2)

$-(-6) - 3(-2) = 12$

$6 + 6 = 12$

$12 = 12 \checkmark$

3. $y = \frac{1}{2}x + 4$

a (9, 10)

b (10, 9)

Put equations in slope-intercept form (also called function form)

4. $-6x + y = 11$

$\frac{+6x \quad +6x}{\hline}$

$y = 6x + 11$

5. $8x + 2y = 10$

6. $10x - 5y = 25$

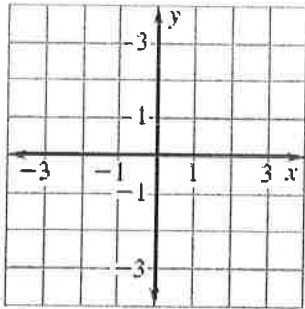
$\frac{-10x \quad -10x}{\hline}$

$\frac{-5y = -10x + 25}{\hline \quad \quad \quad \hline}$

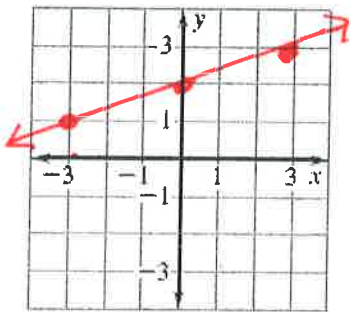
$y = 2x - 5$

Graph the equation using a table.

7. $y = -3x - 1$



8. $y = \frac{1}{3}x + 2$

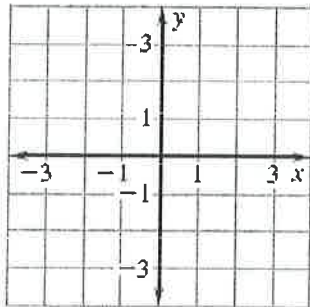


x	y
-3	1
0	2
3	3

$\frac{1}{3}(-3) + 2 = -1 + 2 = 1$

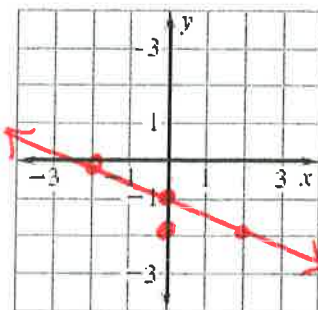
$\frac{1}{3}(3) + 2 = 1 + 2 = 3$

9. $-4x + 2y = 4$ (remember to put in " $y=mx+b$ " first)



10. $2x + 4y = -4$ (remember to put in " $y=mx+b$ " first)

~~$2x + 4y = -4$~~
 $\frac{-2x}{4} - \frac{-2x}{4} = \frac{-4}{4}$
 $y = -\frac{1}{2}x - 1$



x	y
-2	0
0	-1
2	-2

$-\frac{1}{2}(-2) - 1$

$-\frac{1}{2}(2) - 1$

SECTION 4.3 REVIEW

Determine if either point lies on the graph of the line.

1. $y = 8$

- a. $(8, -12)$
- b. $(-2, 8)$

2. $x = -3$

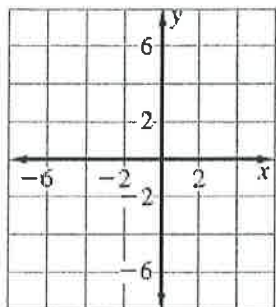
- a. $(9, -3)$ N.S.
- b. $(-3, -2)$ SOLUTION

$(9, -3)$
x
 $9 \neq -3$

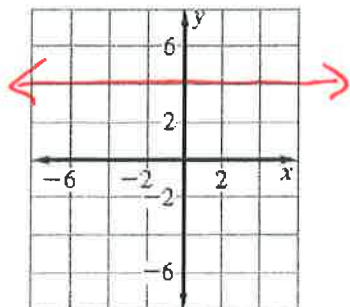
$(-3, -2)$
x
 $-3 = -3 \checkmark$

Graph the equation.

3. $x = -6$



4. $y = 4$



x	y
	4
	4
	4

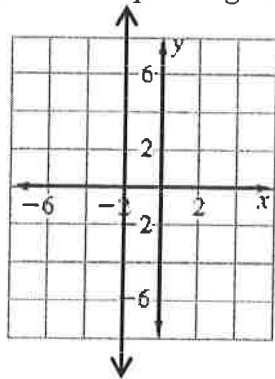
STUDY TIP FOR CHAPTER 4 TEST

For each, give the equation of the line, the slope, and intercept.

5. Equation: _____

Slope: _____

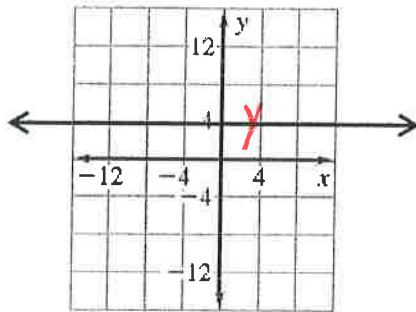
(Circle) X-intercept or Y-intercept and give the ordered pair: (_____ , _____)



6. Equation: $Y=4$

Slope: $m = \text{zero}$

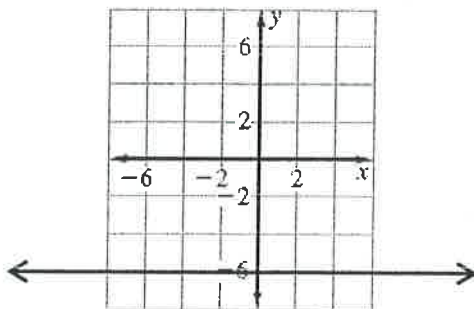
(Circle) X-intercept or Y-intercept and give the ordered pair: (0 , 4)



7. Equation: _____

Slope: _____

(Circle) X-intercept or Y-intercept and give the ordered pair: (_____ , _____)



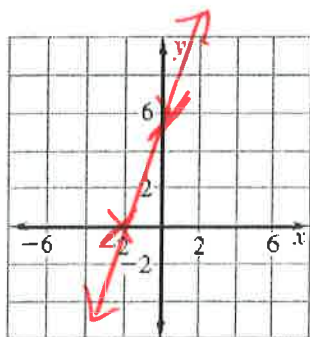
SECTION 4.4 REVIEW

Find the x -intercept and the y -intercept of each equation.

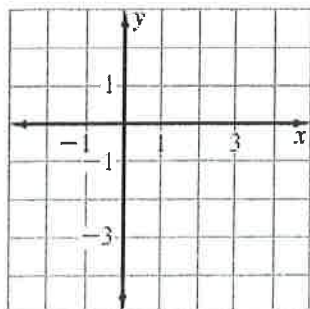
<p>1. $5x + 10y = 30$</p>	<p>2. $8x - 2y = 16$</p> <p>$X:$ $8x - 2(\cancel{0}) = 16$ $\frac{8x}{8} = \frac{16}{8}$ $X = 2$</p> <p>$Y:$ $8(\cancel{0}) - 2y = 16$ $-\frac{2y}{-2} = \frac{16}{-2}$ $Y = -8$</p> <p>$X: (2, 0)$ $Y: (0, -8)$</p>	<p>3. $-12x + 2y = -36$</p>
--------------------------------------	--	--

Draw the line that has the given intercepts. Label the points X and Y where the line crosses the axes.

4. x -intercept: -2
 y -intercept: 6



5. x -intercept: 2
 y -intercept: -3



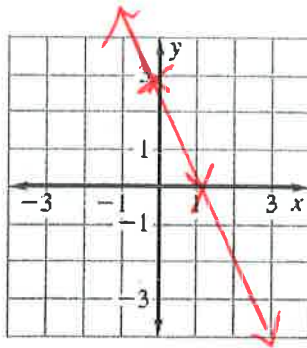
STUDY TIP FOR CHAPTER 4 TEST

Graph the equation with X and Y intercepts. Label the points X and Y where the line crosses the axes

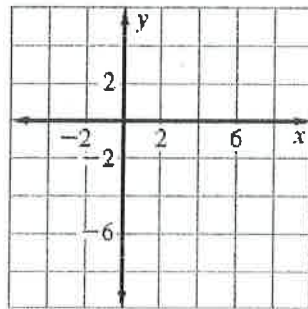
6. $3x + 9y = 9$

X: 3 (3,0)

Y: 1 (0,1)



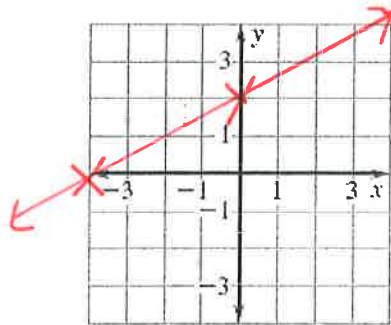
7. $6x - 6y = 36$



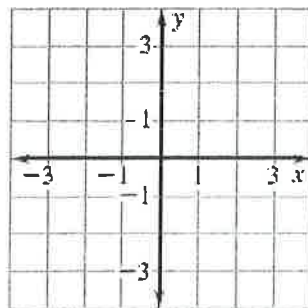
8. $4x - 8y = -16$

X: -4

Y: 2

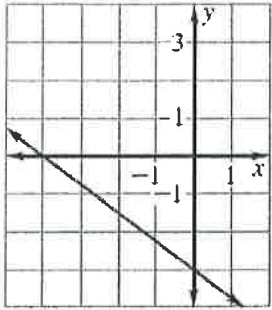
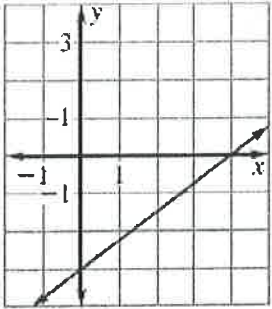
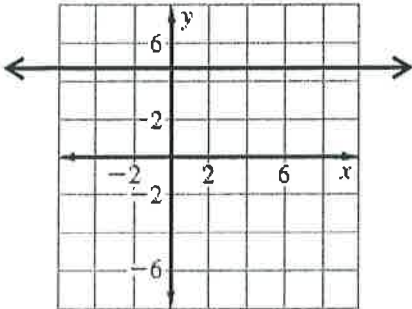
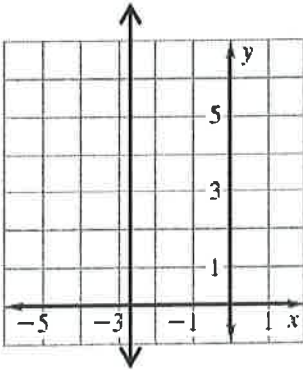


9. $-10x - 5y = -20$



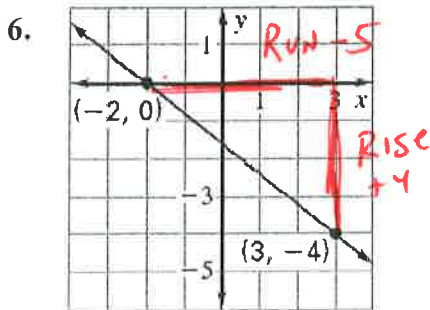
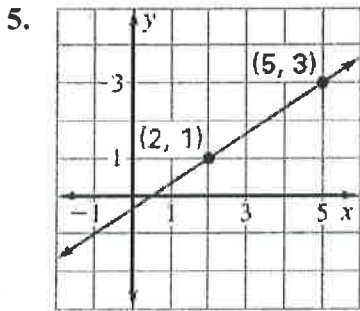
SECTION 4.5 REVIEW

Without calculating, tell whether the slope of the line is *positive, negative, zero, or undefined*.

<p>1. </p>	<p>2. </p>
<p>3. </p>	<p>4. </p>

Find the slope of the line.

WHAT EQUATION WILL YOU USE? $m =$

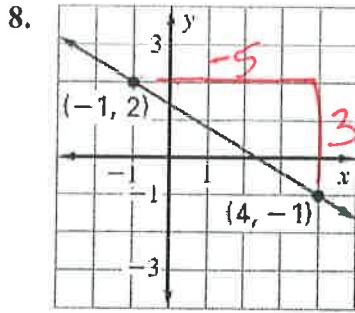


$$m = \frac{\text{Rise}}{\text{Run}} = \frac{4}{-5}$$

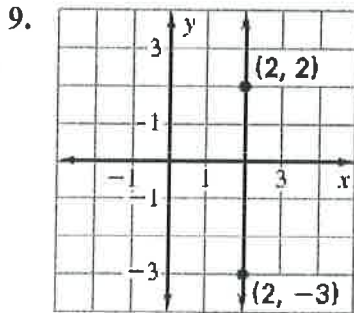
$$m = -4/5$$



Find the slope of the line (continued).



$$m = -\frac{3}{5}$$



Find the slope of the line.

WHAT EQUATION WILL YOU USE? $m =$

<p>10. (1, 2) and (6, 12)</p> $m = \frac{2-12}{1-6} = \frac{-10}{-5}$ $m = 2$	<p>11. (5, -2) and (5, 8)</p>	<p>12. (-8, -6) and (-2, -2)</p> $m = \frac{-6+2}{-8+2} = \frac{-4}{-6}$ $m = \frac{2}{3}$
<p>13. (3, -5) and (9, -2)</p>	<p>14. (-10, -5) and (2, -2)</p> $m = \frac{-5+2}{-10-2} = \frac{-3}{-12}$ $m = \frac{1}{4}$	<p>15. (3, 10) and (8, 10)</p>

SECTION 4.7 REVIEW

Identify the slope and y-intercept of the line with the given equation.

1. $y = 5x - \frac{7}{8}$

2. $10 - \frac{3}{4}x = y$

$y = -\frac{3}{4}x + 10$

$m = -\frac{3}{4}$

$b = 10$

3. $4x + y = 8$

4. $-2y = 2x - 20$

$\frac{-2y}{-2} = \frac{2x}{-2} - \frac{20}{-2}$

$y = -x + 10$

$m = -1$

$b = 10$

5. $6x - 12y = -24$

6. $5x + 2y = 10$

$\frac{-5x}{-5} + \frac{2y}{-5} = \frac{-5x}{-5} + \frac{10}{-5}$

$y = -\frac{5}{2}x + 5$

$m = -\frac{5}{2}$

$b = 5$

7. $12x + 3y = 9$

8. $-15x + 5y = 30$

$\frac{+15x}{+15} + \frac{5y}{5} = \frac{+15x}{+15} + \frac{30}{5}$

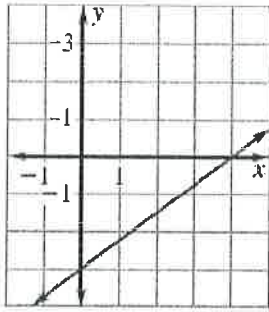
$y = 3x + 6$

$m = 3$

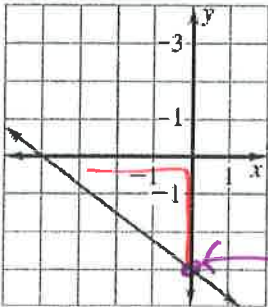
$b = 6$

Identify the slope and y-intercept of the line with the given equation.

9.



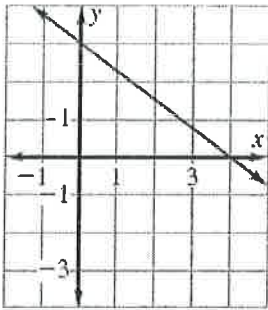
10.



$$m = \frac{-3}{4}$$

$$b = -3$$

11.

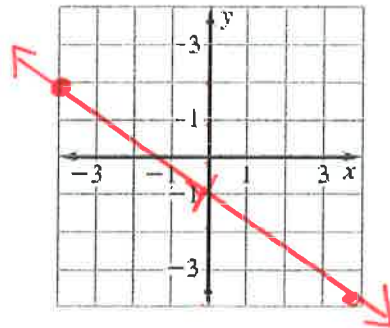


Graph the equation using the slope and y-intercept

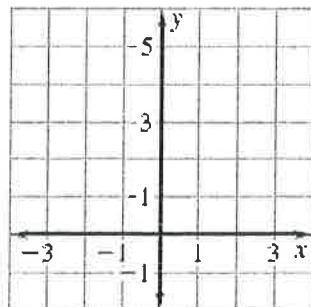
12. $y = -\frac{3}{4}x - 1$

$$m = -\frac{3}{4}$$

$$b = -1$$

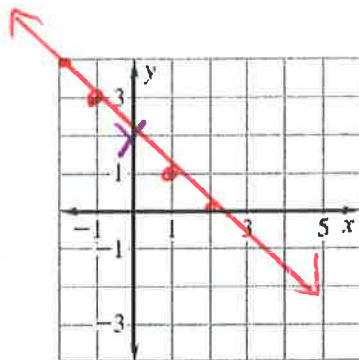


13. $y = 3x - 2$

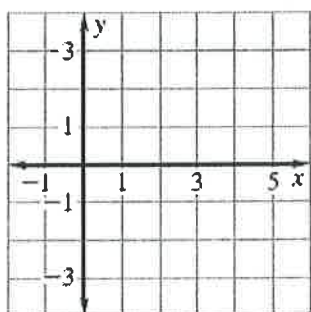


14. $y = -x + 2$

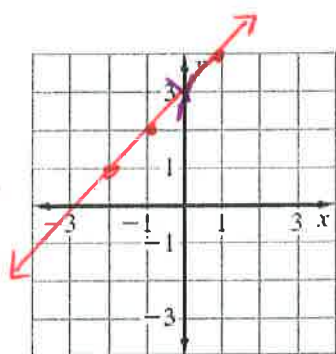
$m = -1/1$
 $B = 2$



15. $y = \frac{1}{3}x - 4$

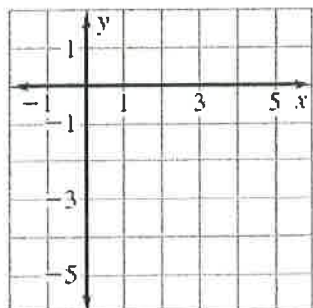


16. $y = x + 3$



$m = 1/1$
 $B = 3$

17. $y = \frac{4}{3}x - 5$



SECTION 4.7 REVIEW (continued)

Determine which lines are parallel.

18. line a: (-4, -1) and (4, 5)

line b: (-8, -10) and (8, 2)

$$m = \frac{-1 - 5}{-4 - 4} = \frac{-6}{-8}$$

$$m = 3/4$$

$$M = \frac{-10 - 2}{-8 - 8} = \frac{-12}{-16}$$

$$m = 3/4$$

lines //

because the slopes are the same

19. line a: (-6, -2) and (3, 4)

line b: (2, 5) and (-4, -4)

Tell whether the graphs of the two equations are parallel lines.

20. $y = 8x - 3$,

$8x + y = 3$

$$m = 8$$

$$\frac{-8x - 8x}{-8x - 8x}$$

$$y = -8x + 3$$

$$m = -8$$

lines NOT //

because the slopes are different.

21. $2y = 10x + 7$,

$5x - y = 6$

22. $8x - 3y = 9$,

$3y - 12 = 8x$

$$\frac{-8x - 8x}{-8x - 8x}$$

$$-3y = -8x + 9$$

$$\frac{-3y}{-3} = \frac{-8x + 9}{-3}$$

$$y = \frac{8}{3}x - 3$$

$$m = 8/3$$

same

$$\frac{3y - 12}{+12} = \frac{8x}{+12}$$

$$\frac{3y}{3} = \frac{8x + 12}{3}$$

$$y = \frac{8}{3}x + 4$$

$$m = 8/3$$

lines are //

SECTION 4.8 REVIEWEvaluate the function when $x = -10, 0,$ and 5 .

1. $f(x) = 4x - 5$

2. $g(x) = -10x + 100$

$$g(-10) = -10(-10) + 100 = 100 + 100 = 200$$

$$g(0) = 100$$

$$g(5) = -10(5) + 100 = -50 + 100 = 50$$

3. $p(x) = \frac{1}{2}x$

4. $q(x) = \frac{4}{5}x^2 - 2$

$$\begin{aligned} q(-10) &= \frac{4}{5} \cdot \left(\frac{-10}{1}\right)^2 - 2 \\ &= -8 + -2 \\ &= -10 \end{aligned}$$

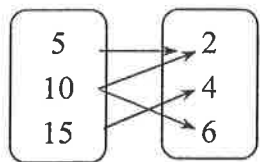
$$\begin{aligned} q(5) &= \frac{4}{5} \left(\frac{5}{1}\right)^2 - 2 \\ &= 4 - 2 \\ &= 2 \end{aligned}$$

$$q(0) = -2$$

IDENTIFY A FUNCTION

Tell whether the pairing is a function. Explain your reasoning.

5) Input Output



6)

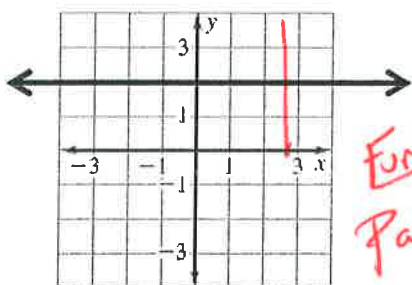
Input	Output
-2	2
4	2
6	4
8	4

*FUNCTION
NO REPEATING
X VALUE*

7)

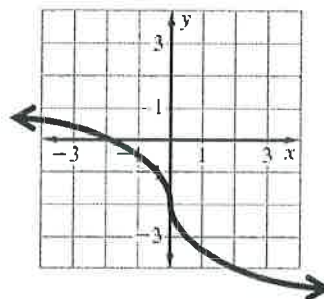
X	2	4	4	9
Y	-1	-2	-3	-4

8)

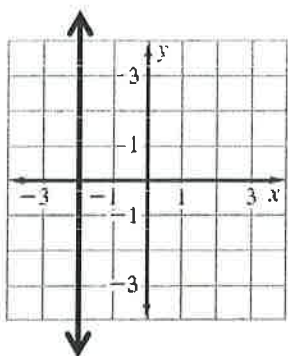


*FUNCTION
PASS V-LINE TEST*

9)



10)



*NOT FUNCTION
FAILED V-LINE
TEST*

11)

