

Name _____

Math 8R

Date _____

Period _____

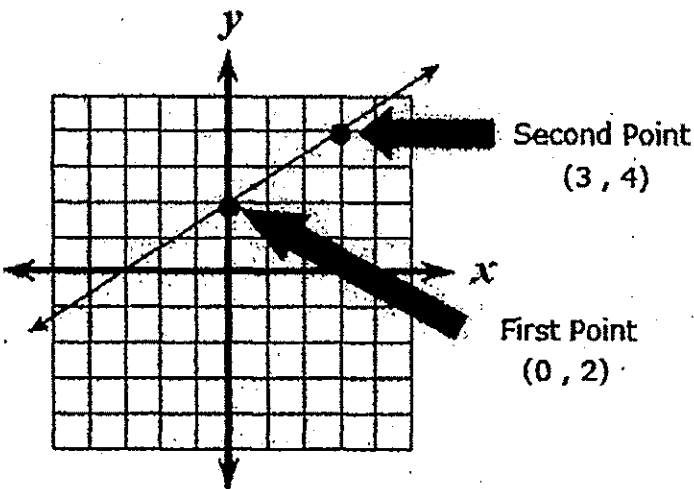
Graphing Test Review

1. What is the y-intercept of the line whose equation is, $y = 5x - 2$?

2. Complete the ordered pairs in the table for the equation, $y = -x + 8$.

x	3	8	0.5
y			

3. What is the equation of the line graphed below?

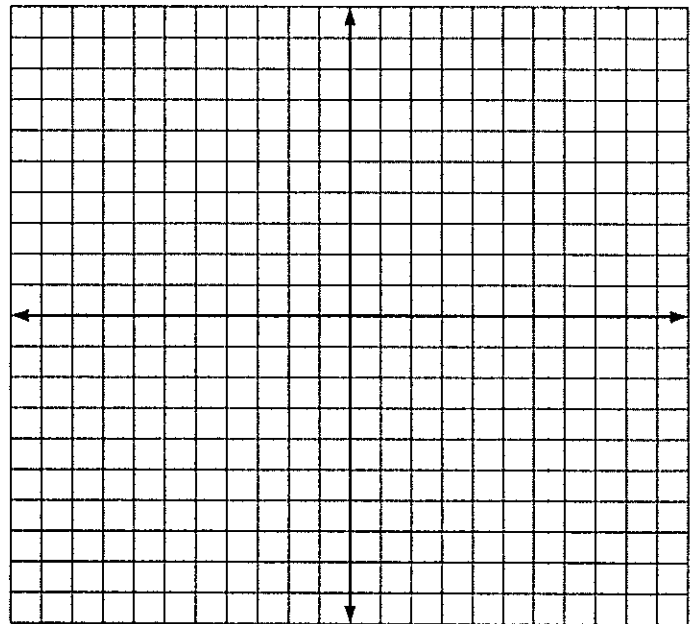


4. Which is the rule for the function table?

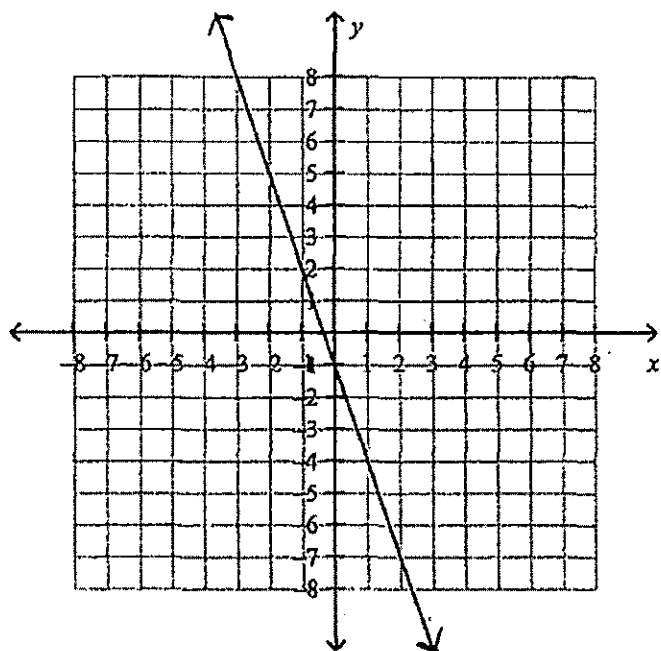
x	-1	0	1	2
y	4	7	10	13

- a. $y = x + 5$
- b. $y = 2x + 8$
- c. $y = x + 11$
- d. $y = 3x + 7$

5. Graph the linear function, $y = 2x - 4$



6. Write a rule for the linear function.



- a. $f(x) = -3x^2 + 1$
- b. $f(x) = 3x - 1$
- c. $f(x) = 3x + 1$
- d. $f(x) = -3x - 1$

8. Which equation represents the values in the table?

x	-1	0	1	2	3
y	5	7	9	11	13

- a. $y = 2x + 8$
- b. $y = 2x + 7$
- c. $y = 3x + 7$
- d. $y = 2x - 7$

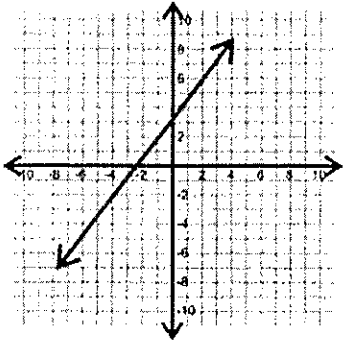
7. Find an ordered pair that satisfies the function,
 $y = -3x - 10$.

- a. (1, -10)
- b. (-1, -7)
- c. (-1, 7)
- d. (0, 10)

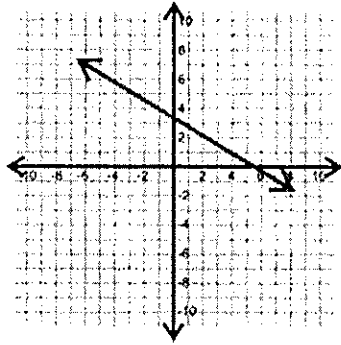
9. Find the slope of the line that passes through
(1, 2) and (2, 4).

- a. 2
- b. $\frac{1}{2}$
- c. 1
- d. $\frac{3}{2}$

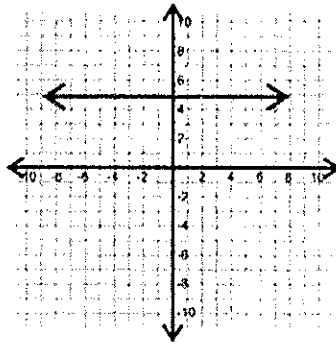
10. Determine the type of slope each line has.



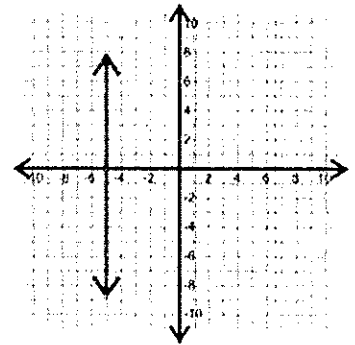
a. _____



b. _____



c. _____



d. _____

11. Find the output for each input.
 $y = -9x + 15$

Input	Rule	Output
x	$y = -9x + 15$	y
-5		
1		
3		

13. Rewrite the equation $2y + 5x = 12$ in slope-intercept form. Then find the slope and y-intercept of the graph of the equation.

$m =$ _____

$b =$ _____

12. Rewrite the equation $y - 6x = 12$ in slope-intercept form. Then find the slope and y-intercept of the graph of the equation.

$m =$ _____

$b =$ _____

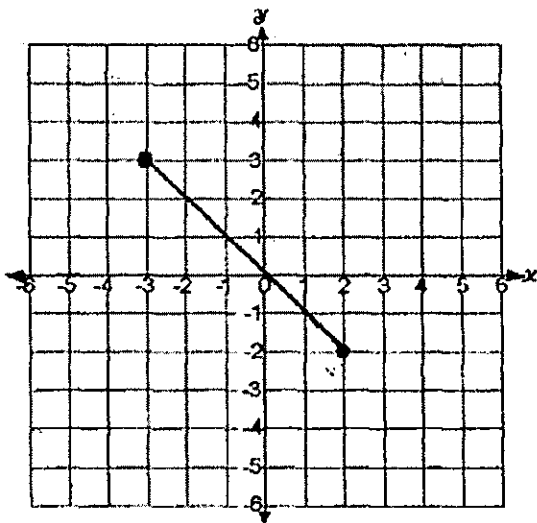
14. Find the slope-intercept form of the line that passes through the point $(-2, 3)$ and has a slope of 5.

15. Find the slope-intercept form of the line that passes through the point $(-2, 1)$ and has a slope of -3 .

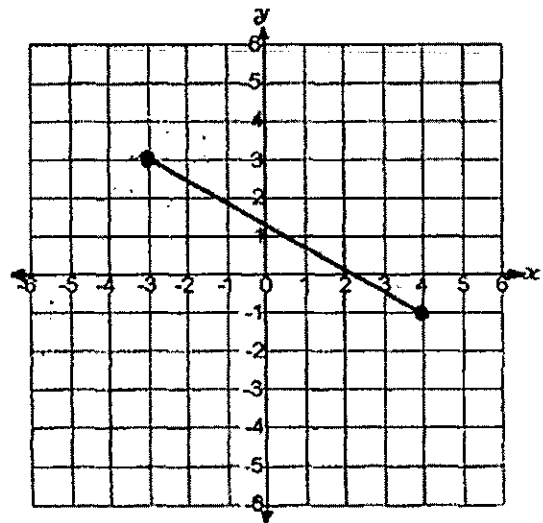
17. What is the slope of the line whose equation is, $y = 3x + 7$?

18. What is the equation of a line whose slope is 2 and y -intercept is $(0, 8)$?

16. Approximate the length of the line to the nearest tenth.



19. Approximate the length of the line to the nearest tenth.

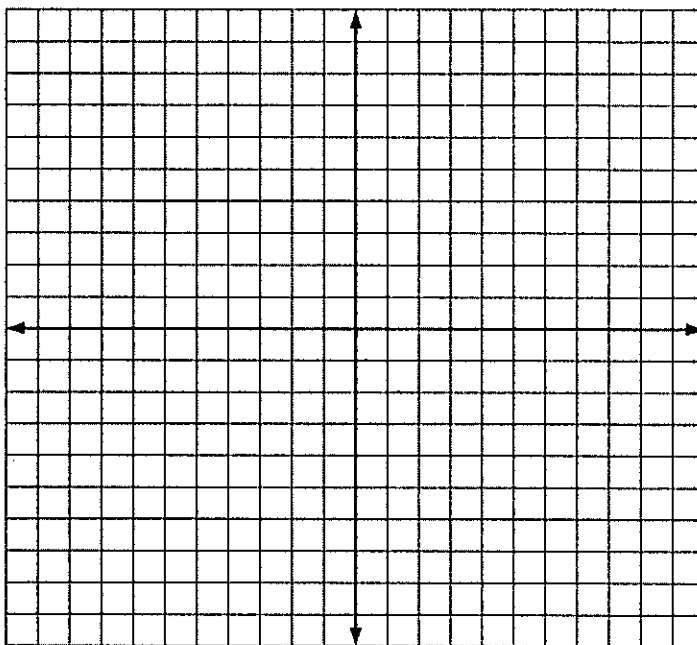


20. Graph the equation $4x + 2y = 6$

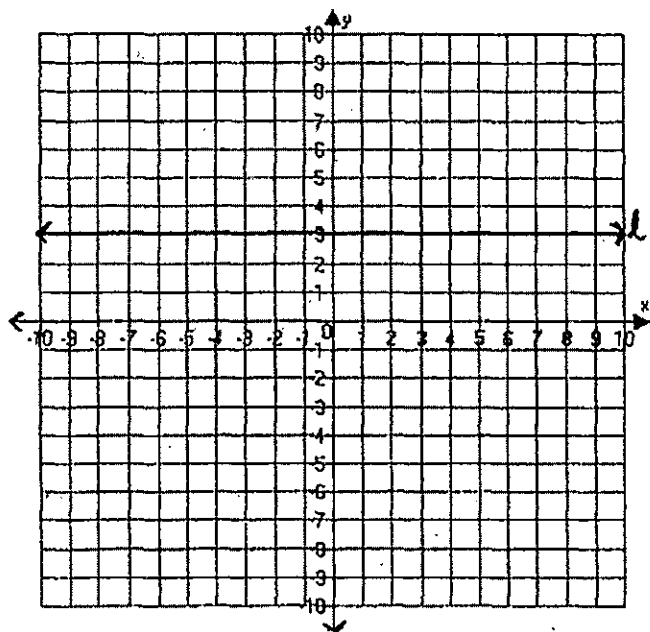
Solve: $4x + 2y = 6$

$m =$ _____

$b =$ _____



21. What is the equation of the line graphed below?



22. What is the equation of a line that passes through the points $(3, 4)$ and $(2, 6)$?

23. Solve the given system of equations graphically.

$$y = x + 3$$
$$y = 2x + 1$$

$$y = x + 3$$

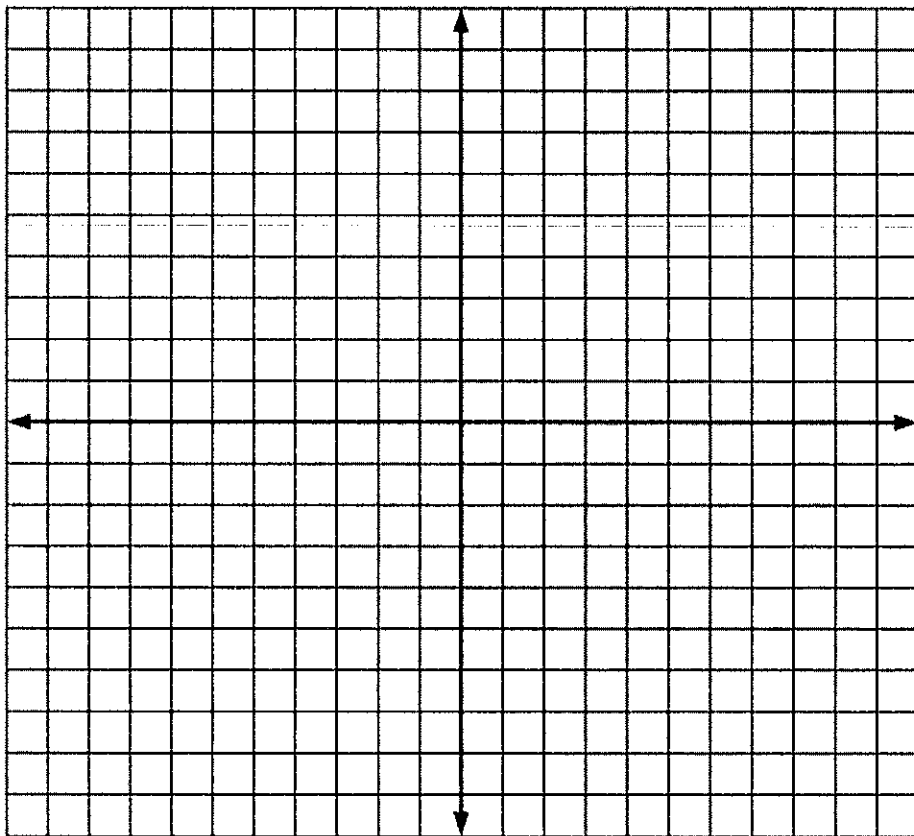
slope (m): _____

y-intercept (b): _____

$$y = 2x + 1$$

slope (m): _____

y-intercept (b): _____



Solution point: _____

Name of the system: _____

Graphing Test Review

1. What is the y-intercept of the line whose equation is, $y = 5x - 2$

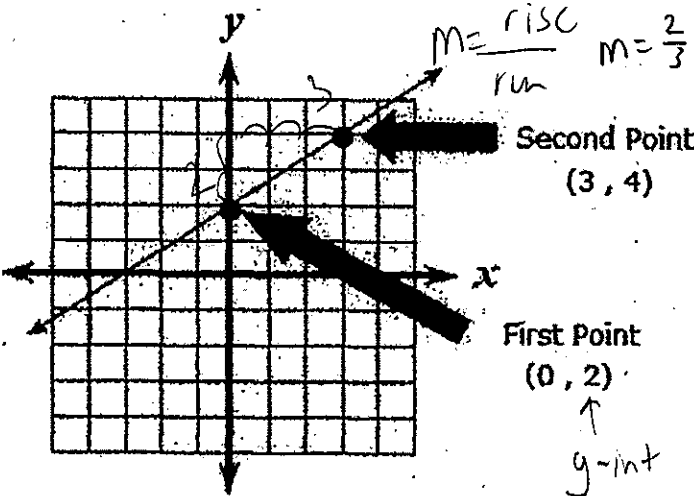
$b = -2$

Coordinate: $(0, -2)$

2. Complete the ordered pairs in the table for the equation, $y = -x + 8$.

x	3	8	0.5
y	5	0	7.5
	$y = -x + 8$	$y = -(3) + 8$	$y = -(8) + 8$
		$y = -(0.5) + 8$	

3. What is the equation of the line graphed below?



$y = mx + b$
 $m = \frac{2}{3}$
 $b = 2$

$y = \frac{2}{3}x + 2$

4. Which is the rule for the function table?

→ equation

→ y intercept if $x = 0$

x	-1	0	1	2
y	4	7	10	13

$y = mx + b$
 $m = 3$
 $b = 7$

y-int

$(-1, 4) (0, 7)$
 x_1, y_1, x_2, y_2

- a. $y = x + 5$
- b. $y = 2x + 8$
- c. $y = x + 11$
- d. $y = 3x + 7$

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{7 - 4}{0 - (-1)}$
 $m = \frac{3}{1} = 3$

$m = 3$

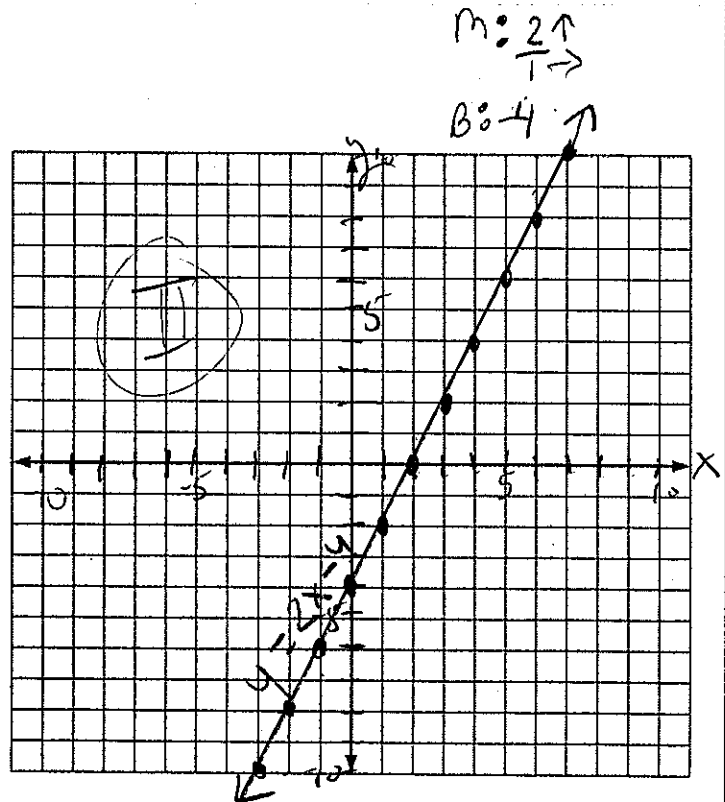
$y = mx + b$

$4 = 3(-1) + b$

$4 = -3 + b$

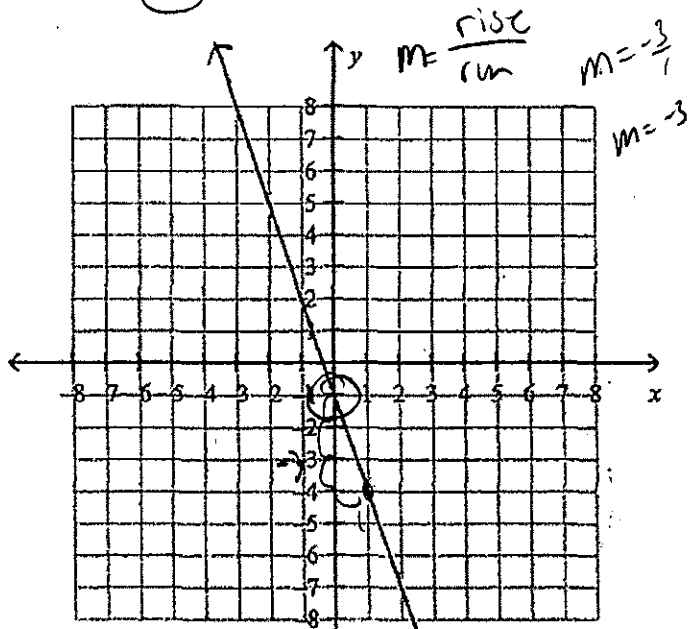
$+3 \quad +3$
 $7 = b$

5. Graph the linear function, $y = 2x - 4$



equation $f(x) = y$

6. Write a rule for the linear function.



a. $f(x) = -3x^2 + 1$

b. $f(x) = 3x - 1$

c. $f(x) = 3x + 1$

d. $f(x) = -3x - 1$

$y = mx + b$

$m = -3$

$b = -1$

8. Which equation represents the values in the table?

x	-1	0	1	2	3
y	5	7	9	11	13

a. $y = 2x + 8$

b. $y = 2x + 7$

c. $y = 3x + 7$

d. $y = 2x - 7$

$y = mx + b$

$m = 2$

$b = 7$

$(-1, 5) (0, 7)$
 $x_1, y_1 \quad x_2, y_2$

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{7 - 5}{0 - (-1)}$

$m = \frac{2}{1}$
 $m = 2$

$m = 2 \quad (-1, 5)$
 $y = mx + b$
 $5 = 2(-1) + b$
 $5 = -2 + b$
 $+2 \quad +2$
 $7 = b$

7. Find an ordered pair that satisfies the function, $y = -3x - 10$.

- a. $(1, -10)$
- b. $(-1, -7)$
- c. $(-1, 7)$
- d. $(0, 10)$

$(1, -10) \quad (-1, -7)$
 $y = -3x - 10$
 $-10 = -3(1) - 10$
 $-10 = -3 - 10$
 $-10 \neq -13$
 $y = -3x - 10$
 $-7 = -3(-1) - 10$
 $-7 = 3 - 10$
 $-7 = -7$

Aguess
and
check

9. Find the slope of the line that passes through $(1, 2)$ and $(2, 4)$.

- a. 2
- b. $\frac{1}{2}$
- c. 1
- d. $\frac{3}{2}$

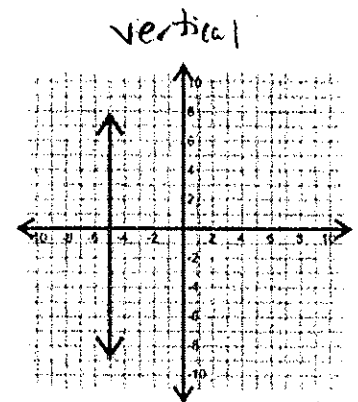
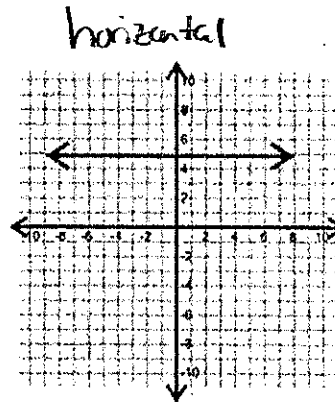
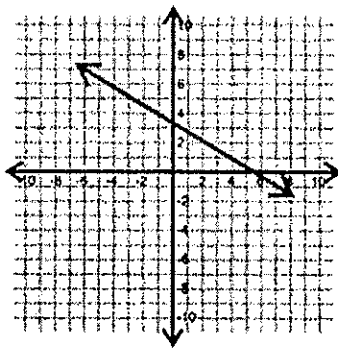
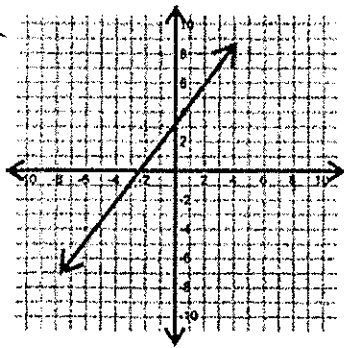
$(1, 2) (2, 4)$
 $x_1, y_1 \quad x_2, y_2$
 $m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{4 - 2}{2 - 1}$

$m = \frac{2}{1}$

$m = 2$

10. Determine the type of slope each line has.



a. positive

b. Negative

c. zero

d. Undefined

NO slope

11. Find the output for each input.

$$y = -9x + 15$$

Input	Rule	Output
x	$y = -9x + 15$	y
-5	$y = -9(-5) + 15$	60
1	$y = -9(1) + 15$	6
3	$y = -9(3) + 15$	-12

13. Rewrite the equation $2y + 5x = 12$ in slope-intercept form. Then find the slope and y-intercept of the graph of the equation.

$$\begin{aligned}
 2y + 5x &= 12 \\
 \underline{-5x \quad -5x} & \\
 2y &= -5x + 12 \\
 \frac{2y}{2} &= \frac{-5x}{2} + \frac{12}{2} \\
 y &= -\frac{5}{2}x + 6 \\
 y &= mx + b
 \end{aligned}$$

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

$b = \underline{6}$

12. Rewrite the equation $y - 6x = 12$ in slope-intercept form. Then find the slope and y-intercept of the graph of the equation.

$$\begin{aligned}
 y - 6x &= 12 \\
 \underline{+6x \quad +6x} & \\
 y &= 6x + 12 \\
 y &= mx + b
 \end{aligned}$$

$m = \underline{6}$

$b = \underline{12}$

14. Find the slope-intercept form of the line that passes through the point $(-2, 3)$ and has a slope of 5. $\rightarrow m$

$$\begin{aligned}
 y &= mx + b \\
 m &= 5 \\
 b &= 13
 \end{aligned}$$

$y = 5x + 13$

$$\begin{aligned}
 (-2, 3) \quad m &= 5 \\
 y &= mx + b \\
 3 &= 5(-2) + b \\
 3 &= -10 + b \\
 \underline{+10 \quad +10} & \\
 13 &= b
 \end{aligned}$$

15. Find the slope-intercept form of the line that passes through the point $(-2, 1)$ and has a slope of $-3 \rightarrow m$

$$y = mx + b$$

$$m = -3$$

$$b = -5$$

$$y = -3x - 5$$

$$\begin{array}{l} x \ y \\ (-2, 1) \ m = -3 \\ y = mx + b \\ 1 = -3(-2) + b \\ 1 = 6 + b \\ \begin{array}{r} -6 \ -6 \\ \hline -5 = b \end{array} \end{array}$$

17. What is the slope of the line whose equation is, $y = 3x + 7$?

$$m = 3$$

18. What is the equation of a line whose slope is 2 and y-intercept is $(0, 8)$?

$$y = mx + b$$

$$m = 2$$

$$b = 8$$

$$y = 2x + 8$$

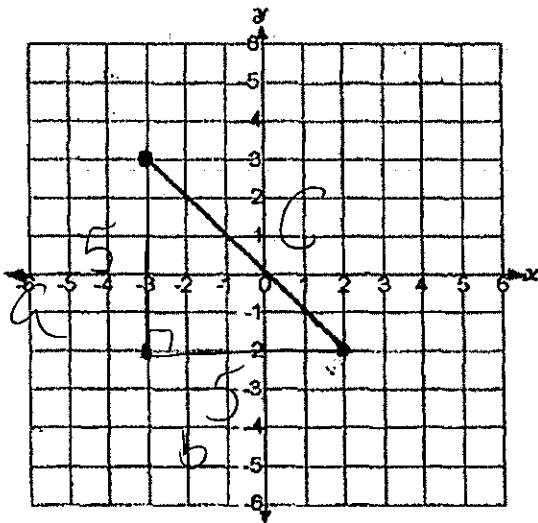
$$y = mx + b$$

$$8 = 2(0) + b$$

$$8 = 0 + b$$

$$8 = b$$

16. Approximate the length of the line to the nearest tenth.



$$a^2 + b^2 = c^2$$

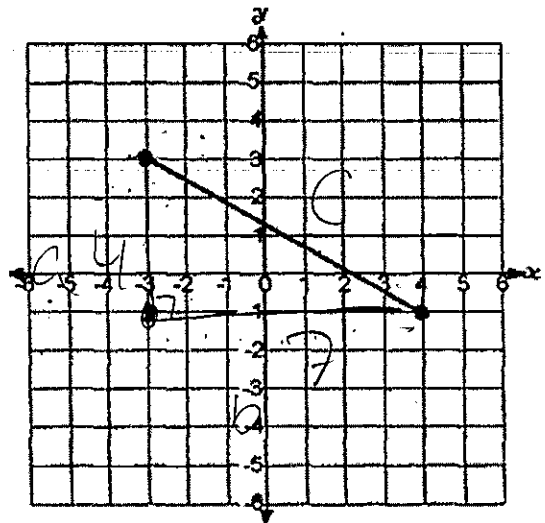
$$5^2 + 5^2 = c^2$$

$$25 + 25 = c^2$$

$$\sqrt{50} = \sqrt{c^2}$$

$$c = 7.1$$

19. Approximate the length of the line to the nearest tenth.



$$a^2 + b^2 = c^2$$

$$4^2 + 7^2 = c^2$$

$$16 + 49 = c^2$$

$$\sqrt{65} = \sqrt{c^2}$$

$$c = 8.1$$

20. Graph the equation $4x + 2y = 6$

Solve: $4x + 2y = 6$

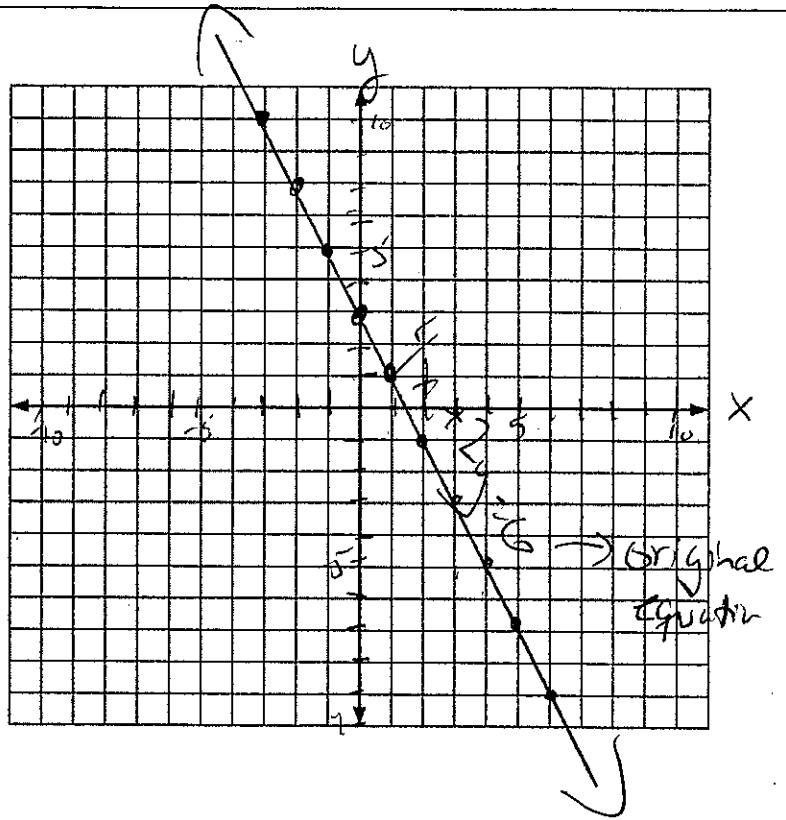
$$\begin{array}{r} \cancel{4x} + 2y = 6 \\ \quad \quad \quad -4x \quad \quad \\ \hline 2y = -4x + 6 \\ \frac{2y}{2} = \frac{-4x}{2} + \frac{6}{2} \end{array}$$

$$y = -2x + 3$$

* Always
Move the
x 1st
when
possible!

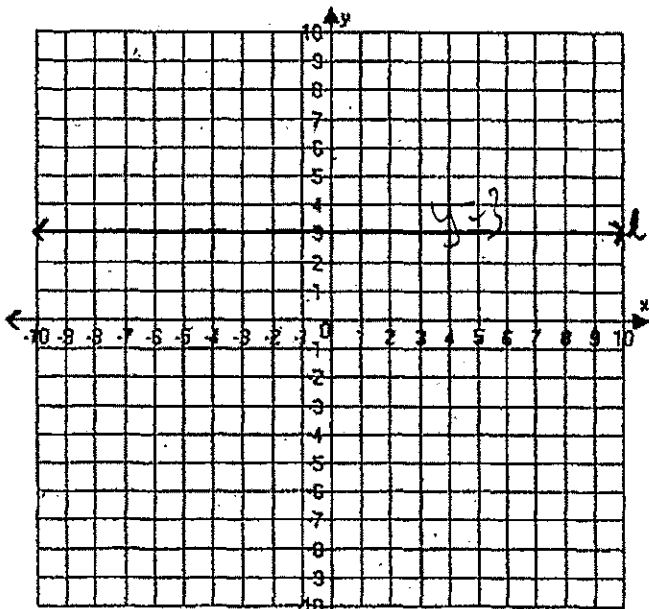
$$m = \frac{-2 \downarrow}{1 \rightarrow}$$

$$b = \frac{3}{\text{eg.}}$$



21. What is the equation of the line graphed below?

* horizontal line



$$y = mx + b$$

$$m = 0$$

$$b = 3$$

$$\begin{array}{l} y = 0x + 3 \\ y = 0 + 3 \\ \boxed{y = 3} \end{array}$$

* goes through the y-axis at 3.

22. What is the equation of a line that passes through the points (3, 4) and (2, 6)?

x_1, y_1 x_2, y_2

$$y = mx + b$$

$$m = -2$$

$$b = 10$$

$$\boxed{y = -2x + 10}$$

(3, 4) (2, 6)
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{6 - 4}{2 - 3}$$

$$m = \frac{2}{-1}$$

$$m = -2$$

$$y = mx + b$$

$m = -2$ (3, 4)
 x, y

$$4 = -2(3) + b$$

$$4 = -6 + b$$

$$+b \quad +6$$

$$10 = b$$

23. Solve the given system of equations graphically.

$$y = x + 3$$
$$y = 2x + 1$$

$$y = x + 3$$

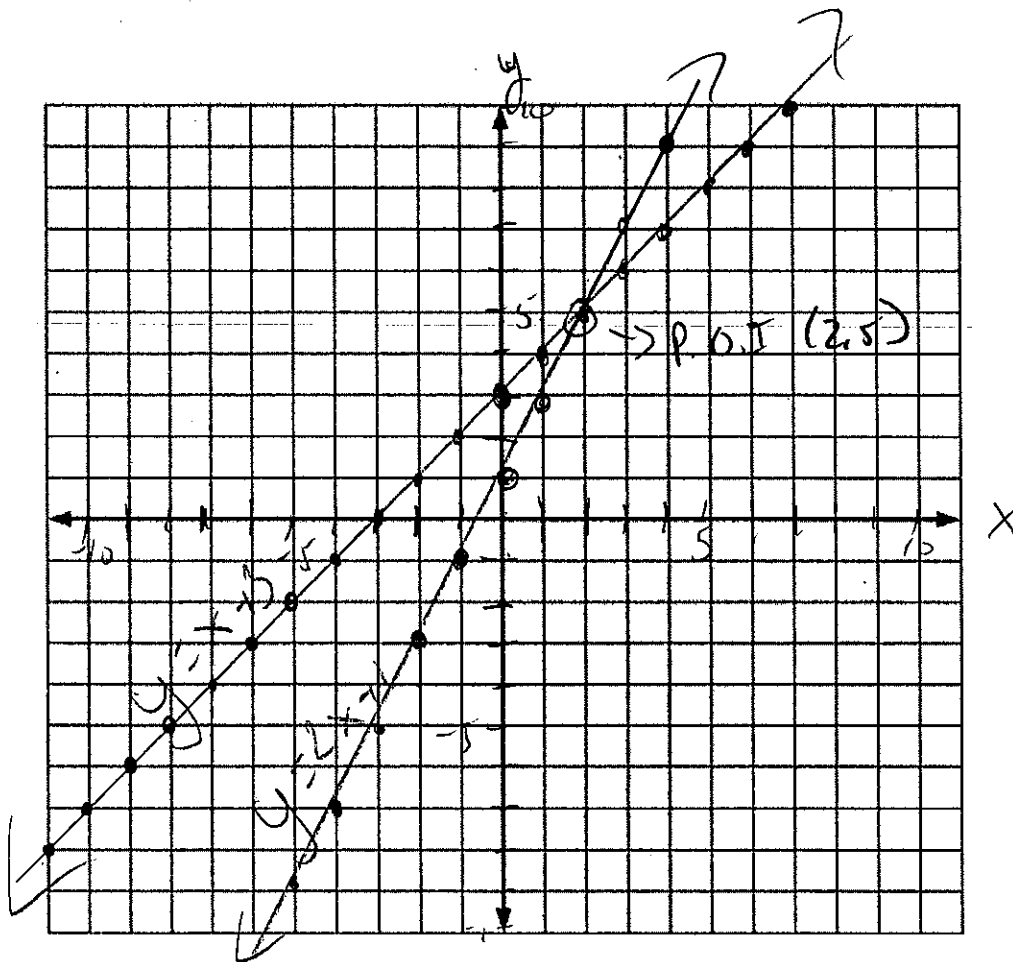
slope (m): $\frac{1}{1}$

y-intercept (b): 3

$$y = 2x + 1$$

slope (m): $\frac{2}{1}$

y-intercept (b): 1



Solution point: $(2, 5)$

Name of the system: Consistent

★ Inconsistent = No solutions ↯

★ Dependent = Infinite solutions ↯