Name: Key Class: _____ Date: _____ A

Chapter 6 Practice Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Match the equation with its graph.

$8x - 8(0) = -64$

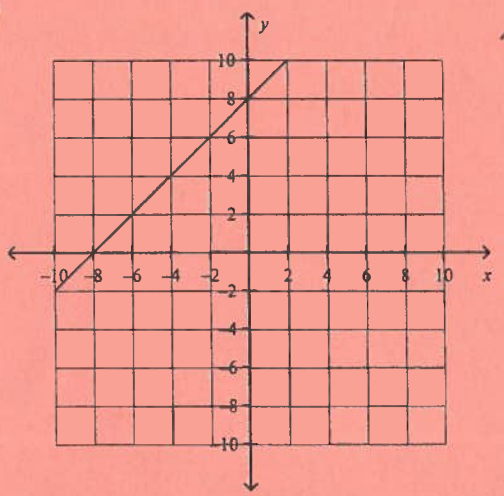
$8x = -64$

$x = -8$

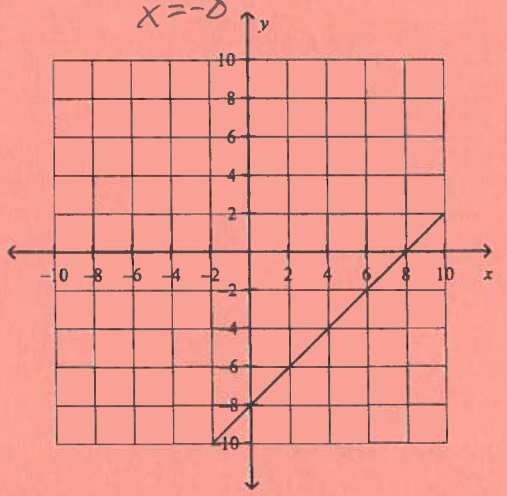
A

1. $8x - 8y = -64$

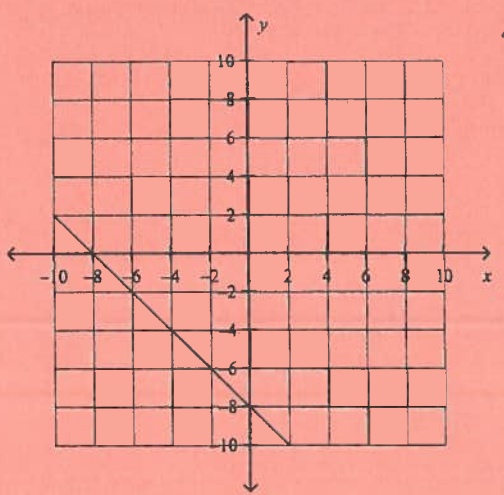
a.



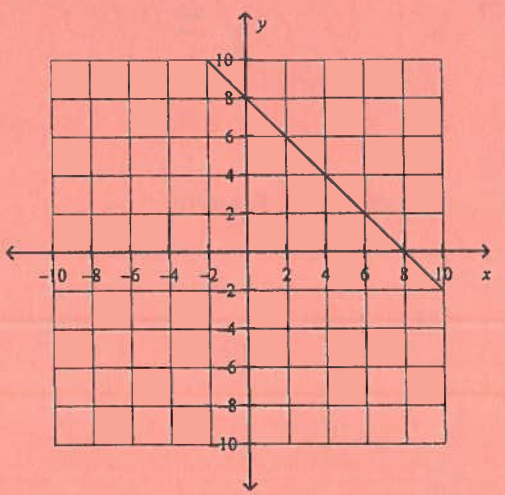
c.



b.



d.

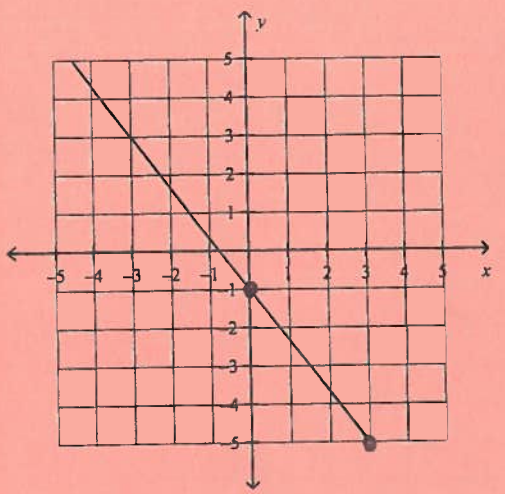


$8(0) - 8y = -64$

$y = 8$

Find the slope of the line.

2.



m

rise / run

$\frac{-4}{3}$

Find the slope and *y*-intercept of the line.

3. $8x + 4y = -76$

$-8x \quad -8x$

$\frac{4y}{4} = \frac{-8x}{4} - \frac{76}{4}$

$y = -2x - 19$

slope $= -2$

y-intercept $= -19$

Find the *x*- and *y*-intercept of the line.

4. $-2x + 6y = -24$

$-2(0) + 6y = -24$

$y = -4$

y-intercept

$(0, -4)$

$-2x + 6(0) = -24$

$-2x = -24$

$x = 12$

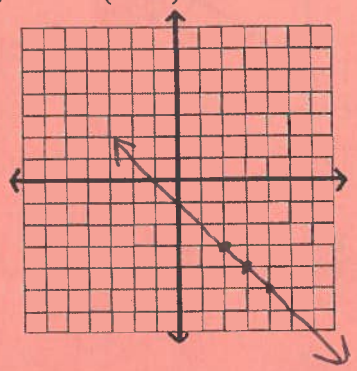
x-intercept

$(12, 0)$

point (2, -3)

Graph the equation.

5. $y + 3 = -(x - 2)$



$m = -1$

Write an equation in point-slope form for the line through the given point with the given slope.

6. $(2, -3)$; $m = \frac{4}{5}$

$y + 3 = \frac{4}{5}(x - 2)$

7. The rate of change (or slope) is constant in the table. Find the rate of change. Explain what it means for the situation.

Time (hours)	Distance (miles)	
4	204	102
6	306	102
8	408	102
10	510	

2, 2, 2

$\text{slope} = \frac{\text{change in } Y}{\text{change in } X} = \frac{102}{2} = 51$

~~Something~~ This thing is moving 51 miles per hour.

8. Find the slope of the line that passes through the pair of points. (-2, 8), (8, –1)

Slope: $-\frac{9}{10}$

$\frac{-1-8}{8+2} = \frac{-9}{10}$

9. Write an equation of a line with the given slope and y-intercept. $m = -3$, $b = 6$

$y = -3x + 6$

10. Find the slope and y-intercept of the line.

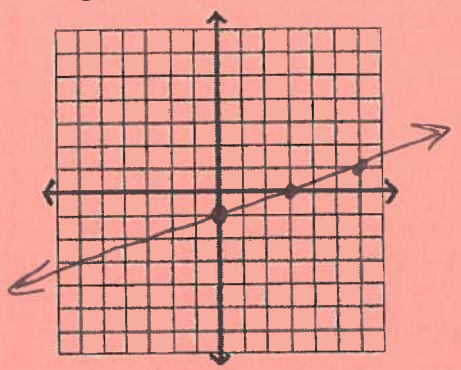
$y = \frac{4}{5}x - 2$

slope: $\frac{4}{5}$

y-intercept: -2

11. Use the slope and y-intercept to graph the equation.

$y = \frac{1}{3}x - 1$



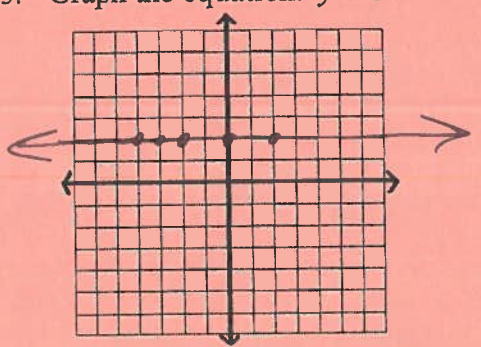
12. A student finds the slope of the line between (11, 19) and (16, 14). She writes $\frac{19-14}{16-11}$.

What mistake did she make?

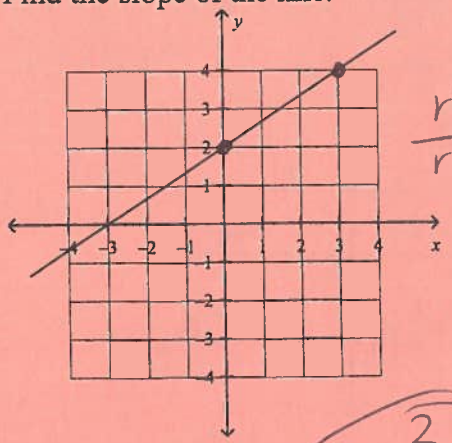
She did $\frac{y_2-y_1}{x_1-x_2}$ instead of $\frac{y_2-y_1}{x_2-x_1}$

flipped her x's

13. Graph the equation. $y = 2$



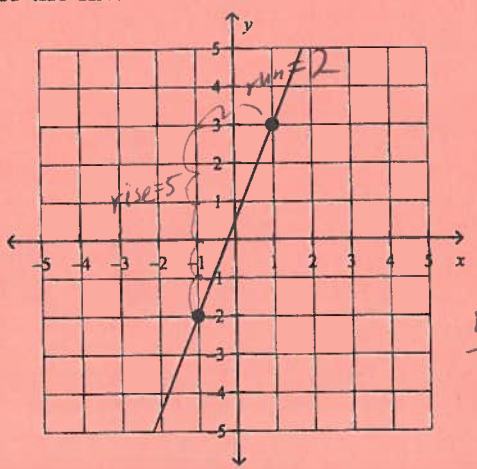
14. Find the slope of the line.



$\frac{\text{rise}}{\text{run}} = \frac{2}{3}$

$m = \frac{2}{3}$

15. Write the slope-intercept form of the equation for the line.



$\frac{\text{rise}}{\text{run}} = \frac{5}{2}$

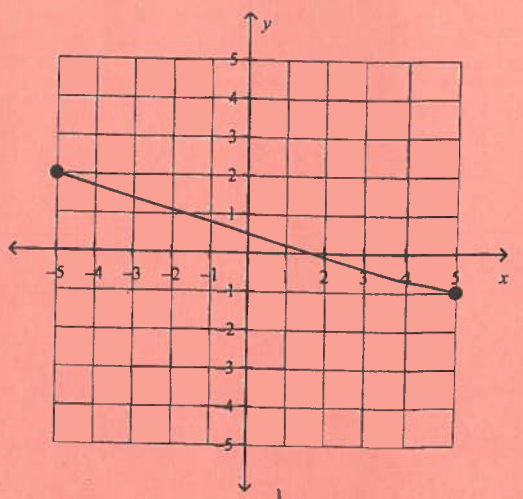
$m = \frac{5}{2}$

$y = mx + b$

$y = \frac{5}{2}x + 0.5$

Write the slope-intercept form of the equation for the line.

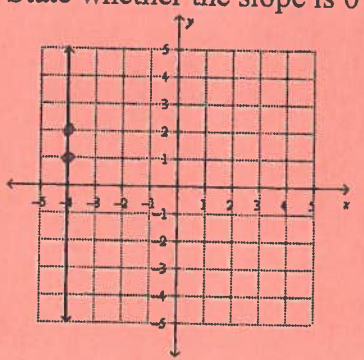
16.



$y = mx + b$

$y = -\frac{3}{10}x + 0.5$

17. State whether the slope is 0 or undefined.



$\frac{\text{rise}}{\text{run}} = \frac{1}{0}$

so slope is undefined

18. Find the x- and y-intercept of the line.

$x + 5y = 30$

x-int: 30 y-int: 6

$0 + 5y = 30$

$y = 6$

$x + 5(0) = 30$

$x = 30$

19. Write an equation in point-slope form for the line through the given point with the given slope. $(-2, -9)$; $m = \frac{2}{5}$

$y + 9 = \frac{2}{5}(x + 2)$

20. A line passes through (5, 3) and (4, 5).

a) Write an equation for the line in point-slope form.

Equation: $y - 3 = -2(x - 5)$

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

$\frac{5-3}{4-5} = \frac{2}{-1} = -2$; m

b) Change the equation from part a) into slope-intercept form.

Equation: $y = -2x + 13$

$y - 3 = -2(x - 5)$

$y - 3 = -2x + 10$

$y - 3 = -2x + 10$

$+3 \quad +3$

$y = -2x + 13$