

Name: Answers

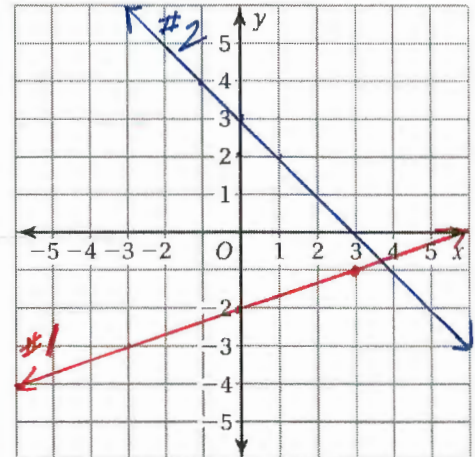
Period: _____

4.1-4.3 Review

Graph both linear equations on the coordinate plane on the right. Make sure you use an input/output table with at least 3 ordered pairs for each. **Label the line with the problem number.**

1) $y = \frac{1}{3}x - 2$

x		y
-3	$\frac{1}{3}(-3) - 2$	-3
0	$\frac{1}{3}(0) - 2$	-2
3	$\frac{1}{3}(3) - 2$	-1



2) $y + x = 3$ (hint: solve for y first)

$y = -x + 3$

x		y
-1	$-(-1) + 3$	4
0	$-(0) + 3$	3
1	$-(1) + 3$	2

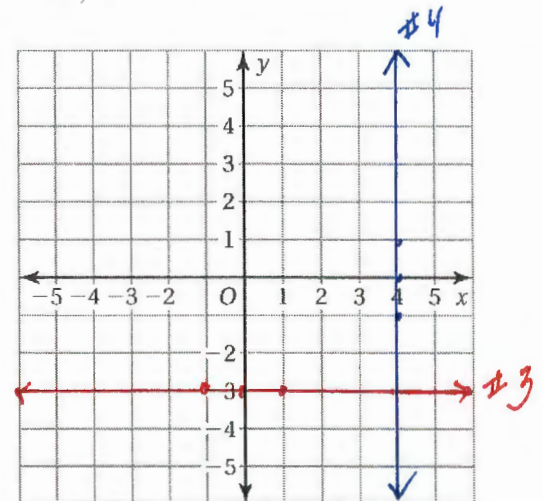
Graph both of the equations on the coordinate plane on the right. You may use an input/output table if you wish.

3) $y = -3$

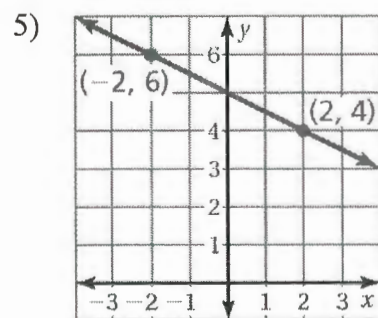
x	y
-1	-3
0	-3
1	-3

4) $x = 4$

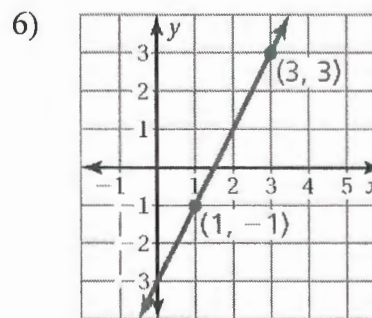
x	y
4	-1
4	0
4	1



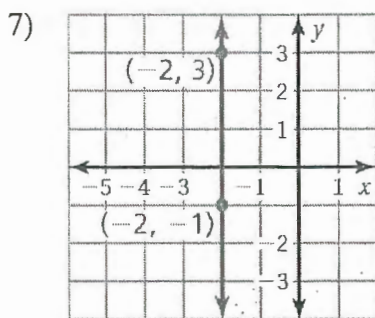
Find the slope of the line in **simplest form**.



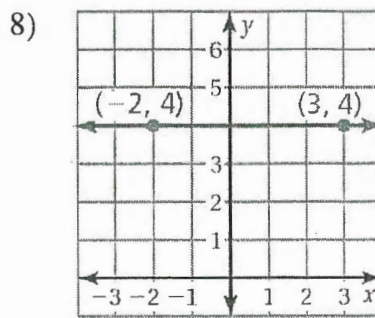
$m = -\frac{1}{2}$



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



$m = \text{Undefined}$



$m = 0$

- 9) What is the slope of the line that is parallel to the line in problem #5. What do we know about the slope of parallel lines?

$m = -\frac{1}{2}$. Parallel lines have the same slope.

- 10) The slope of any line can be written as a ratio that represents its rise over its run.

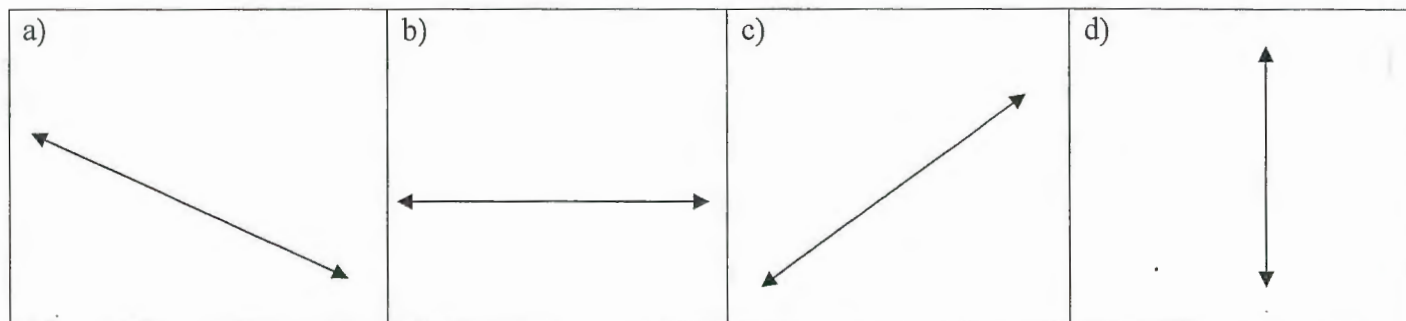
- 11) Match the slope with the line best represented by the slope.

Zero Slope b

Positive Slope c

Negative Slope a

Undefined Slope d



- 12) Find the slope of the line that passes through the points. Write your answer in simplest form.

$m = \frac{y_2 - y_1}{x_2 - x_1}$ a) (4, 8) and (6, 12) $m = 2$
 $m = \frac{12 - 8}{6 - 4} = \frac{4}{2} = 2$

b) (-4, 9) and (-4, -1) $m = \text{Undefined}$
 $m = \frac{-1 - 9}{-4 - (-4)} = \frac{-10}{0}$

c) (2, 6) and (-8, 4) $m = \frac{1}{5}$
 $m = \frac{4 - 6}{-8 - 2} = \frac{-2}{-10} = \frac{1}{5}$

d) (-5, -7) and (1, -7) $m = 0$
 $m = \frac{-7 - (-7)}{1 - (-5)} = \frac{0}{6}$

- 13) Find the missing coordinate if a line passes through (-6, -3), (-10, y) and has a slope of -2.

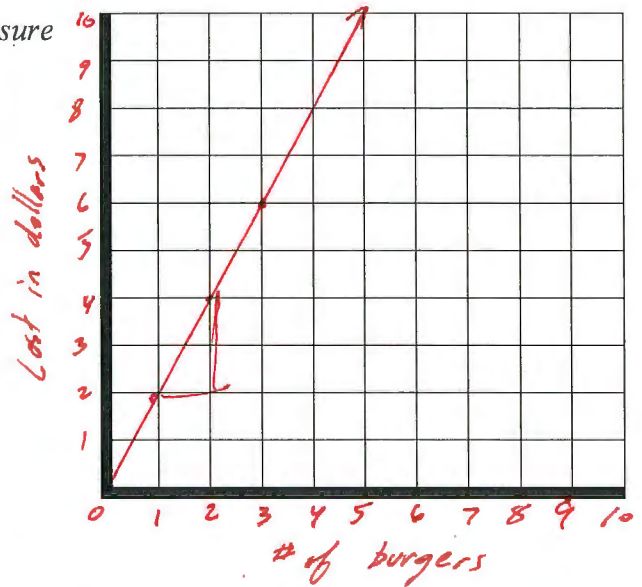
$m = \frac{y_2 - y_1}{x_2 - x_1} \rightarrow -2 = \frac{y - (-3)}{-10 - (-6)}$
 $-2 = \frac{y + 3}{-4}$
 $-2 = \frac{y + 3}{-4}$
 $-8 = y + 3$
 $-11 = y$
 $y = -11$

- 14) There is a holiday special at In-N-Out today!! The cost y (in dollars) for x number of Double-Double burgers you get is represented by the equation $y = 2x$.

- a) Graph the equation using at least 4 ordered pairs. Be sure to label both axis!

x	y
0	0
1	2
2	4
3	6

$$y = 2x$$



- b) What is the slope of the line? Interpret (explain the meaning of) the slope.

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

Interpret:

It costs \$2 for one hamburger.

- 15) To make a special Halloween green hair dye, you mix 3 drops of yellow dye (y) for every 6 drops of blue dye (x).

$$y = kx$$

$$3 = k6$$

- a) Write an equation that represents the situation in simplest form.

$$y = \frac{1}{2}x$$

- b) What is the slope of the line? Interpret the slope. (what does the slope mean in this situation?)

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

Interpret:

For every 1 drop of yellow, you use 2 drops of blue dye.

- c) How many drops of yellow dye would you need if there were 36 drops of blue dye? (use your equation from part a)

18 drops of yellow dye.