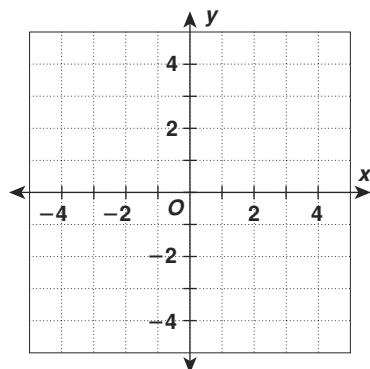


LESSON
Practice B
12-3
Using Slopes and Intercepts

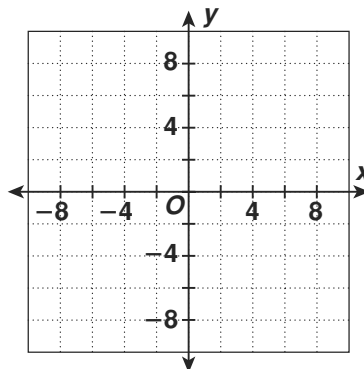
Find the x -intercept and y -intercept of each line.

Use the intercepts to graph the equation.

1. $x - y = -3$



2. $2x + 3y = 12$



Write each equation in slope-intercept form, and then find the slope and y -intercept.

3. $3x + y = 0$

4. $2x - y = -15$

5. $x - 5y = 10$

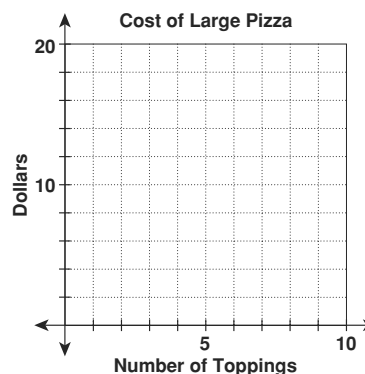
Write the equation of the line that passes through each pair of points in slope-intercept form.

6. $(3, 4), (4, 6)$

7. $(-1, -1), (2, -10)$

8. $(6, 5), (-9, -20)$

9. A pizzeria charges \$8 for a large cheese pizza, plus \$2 for each topping. The total cost for a large pizza is given by the equation $C = 2t + 8$, where t is the number of toppings. Identify the slope and y -intercept, and use them to graph the equation for t between 0 and 5 toppings.




LESSON 12-2 Reading Strategies
Use a Graphic Organizer


Definition
Slope is a measure of the slant of a line.

Slope of a Line
Slope is a ratio. (vertical change compared to horizontal change; $\frac{\text{vertical}}{\text{horizontal}}$)


Lines with Nonzero Slope
Positive slope: The line slants upward from left to right.




Negative slope: The line slants downward from left to right.



Horizontal and Vertical Lines
Zero slope: Horizontal lines have a slope of 0.



Undefined slope: Vertical lines have an undefined slope.



Use the graphic organizer to answer the following questions.

- What do you call the slant of a line?
slope
- Write the ratio that is used to describe slope.
 $\frac{\text{vertical change}}{\text{horizontal change}}$
- How can you tell if a line has positive slope?
The line slants upward from left to right.
- How can you tell if a line has negative slope?
The line slants downward from left to right.
- What kind of line has a slope of 0?
a horizontal line

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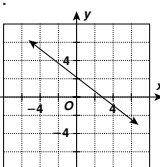
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LESSON 12-2 Puzzles, Twisters & Teasers
A Slippery Slope!

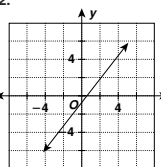
Determine which kind of slope each line has. Then use the letters of the correct answers to solve the riddle.

1.



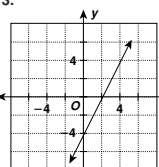
Positive B Negative O
Zero D Undefined L

2.



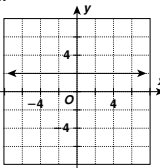
Positive R Negative C
Zero Q Undefined D

3.



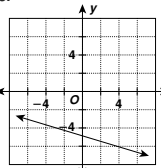
Positive T Negative N
Zero G Undefined M

4.



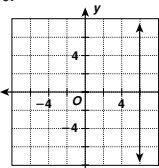
Positive A Negative T
Zero H Undefined V

5.



Positive P Negative U
Zero F Undefined Q

6.



Positive J Negative W
Zero X Undefined Y

What time do you go to the dentist?

$\frac{T}{3} \frac{O}{1} \frac{O}{1} \frac{T}{3} \frac{H}{4} - \frac{H}{4} \frac{U}{5} \frac{R}{2} \frac{T}{3} \frac{Y}{6}$

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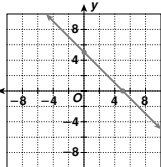
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LESSON 11-3 Practice A
Using Slopes and Intercepts

- Name the ordered pair if the x-intercept is -2. $(-2, 0)$
- Name the ordered pair if the y-intercept is 8. $(0, 8)$
- In the ordered pair (9, 0), what is the x-intercept? 9
- In the ordered pair (0, 0), what is the relationship of the x-intercept and y-intercept?
x-intercept = y-intercept

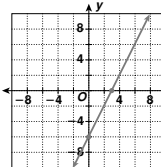
Find the x-intercept and y-intercept of each line. Use the intercepts to graph the equation.

5. $x + y = 5$



x-intercept is 5;
y-intercept is 5

6. $2x - y = 6$



x-intercept is 3;
y-intercept is -6

Write each equation in slope-intercept form, and then find the slope and y-intercept.

7. $2x + y = -5$

$y = -2x - 5$;
 $m = -2$; $b = -5$

8. $x - y = 10$

$y = x - 10$;
 $m = 1$; $b = -10$

9. $x - 2y = 4$

$y = \frac{1}{2}x - 2$;
 $m = \frac{1}{2}$; $b = -2$

Write the equation of the line that passes through each pair of points in slope-intercept form.

10. (1, 2), (-1, 0)

$y = x + 1$

11. (1, -3), (-1, 1)

$y = -2x - 1$

12. (1, 1), (-3, -3)

$y = x$

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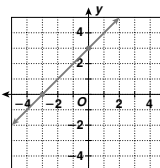
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LESSON 12-3 Practice B
Using Slopes and Intercepts

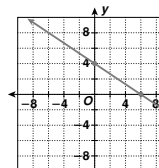
Find the x-intercept and y-intercept of each line. Use the intercepts to graph the equation.

1. $x - y = -3$



x-intercept is -3;
y-intercept is 3

2. $2x + 3y = 12$



x-intercept is 6;
y-intercept is 4

Write each equation in slope-intercept form, and then find the slope and y-intercept.

3. $3x + y = 0$

$y = -3x$; $m = -3$;
 $b = 0$

4. $2x - y = -15$

$y = 2x + 15$; $m = 2$;
 $b = 15$

5. $x - 5y = 10$

$y = \frac{1}{5}x - 2$; $m = \frac{1}{5}$;
 $b = -2$

Write the equation of the line that passes through each pair of points in slope-intercept form.

6. (3, 4), (4, 6)

$y = 2x - 2$

7. (-1, -1), (2, -10)

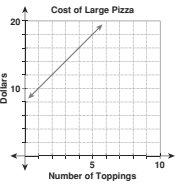
$y = -3x - 4$

8. (6, 5), (-9, -20)

$y = \frac{5}{3}x - 5$

9. A pizzeria charges \$8 for a large cheese pizza, plus \$2 for each topping. The total cost for a large pizza is given by the equation $C = 2t + 8$, where t is the number of toppings. Identify the slope and y-intercept, and use them to graph the equation for t between 0 and 5 toppings.

The slope is 2, and the y-intercept is 8.



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