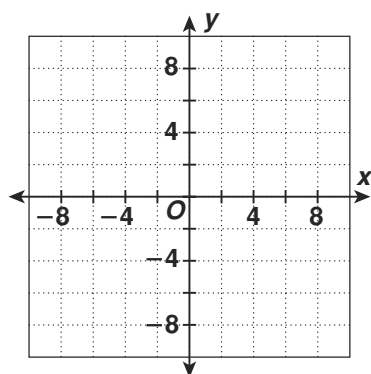


LESSON **Practice A**
11-3 *Using Slopes and Intercepts*

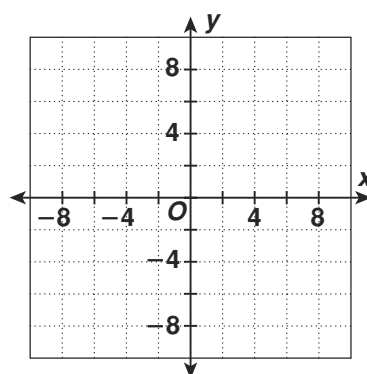
1. Name the ordered pair if the x -intercept is -2 . _____
2. Name the ordered pair if the y -intercept is 8 . _____
3. In the ordered pair $(9, 0)$, what is the x -intercept? _____
4. In the ordered pair $(0, 0)$, what is the relationship of the x -intercept and y -intercept? _____

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

5. $x + y = 5$



6. $2x - y = 6$



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

7. $2x + y = -5$

8. $x - y = 10$

9. $x - 2y = 4$

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

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

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

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

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.

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

Undefined slope: Vertical lines have an undefined slope.

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

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.
vertical change
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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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.

- Positive B Negative O
Zero D Undefined L
- Positive R Negative C
Zero Q Undefined D
- Positive T Negative N
Zero G Undefined M
- Positive A Negative T
Zero H Undefined V
- Positive P Negative U
Zero F Undefined Q
- 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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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.

- $x + y = 5$

x-intercept is 5;
y-intercept is 5
- $2x - y = 6$

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

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

- $2x + y = -5$
 $y = -2x - 5$;
 $m = -2$; $b = -5$
- $x - y = 10$
 $y = x - 10$;
 $m = 1$; $b = -10$
- $x - 2y = 4$
 $y = \frac{1}{2}x - 2$;
 $m = \frac{1}{2}$; $b = -2$

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

- (1, 2), (-1, 0)
 $y = x + 1$
- (1, -3), (-1, 1)
 $y = -2x - 1$
- (1, 1), (-3, -3)
 $y = x$

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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.

- $x - y = -3$

x-intercept is -3;
y-intercept is 3
- $2x + 3y = 12$

x-intercept is 6;
y-intercept is 4

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

- $3x + y = 0$
 $y = -3x$; $m = -3$;
 $b = 0$
- $2x - y = -15$
 $y = 2x + 15$; $m = 2$;
 $b = 15$
- $x - 5y = 10$
 $y = \frac{1}{5}x - 2$; $m = \frac{1}{5}$;
 $b = -2$

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

- (3, 4), (4, 6)
 $y = 2x - 2$
- (-1, -1), (2, -10)
 $y = -3x - 4$
- (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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