

**LESSON
4-3**

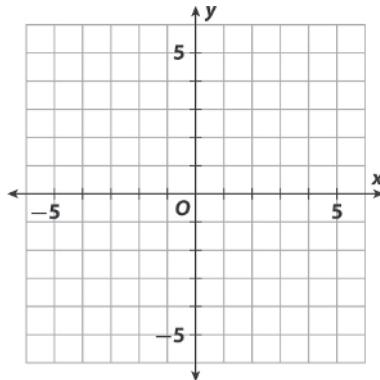
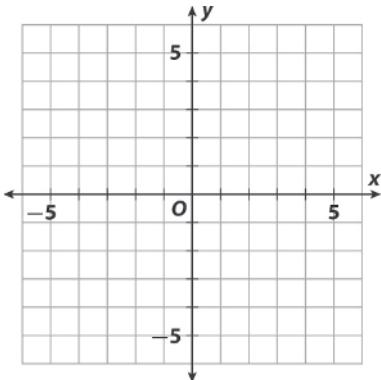
Graphing Linear Nonproportional Relationships Using Slope and y -Intercept

Practice and Problem Solving: A/B

Graph each equation using the slope and the y -intercept.

1. $y = 2x - 1$

2. $y = \frac{1}{2}x + 3$

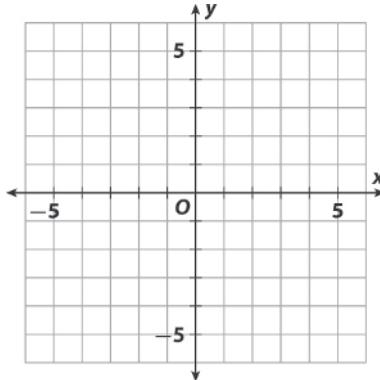
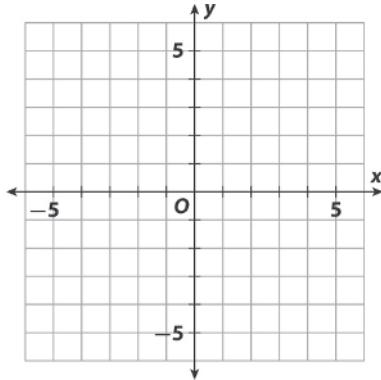


slope = _____ y -intercept = _____

slope = _____ y -intercept = _____

3. $y = x - 4$

4. $y = -x - 2$

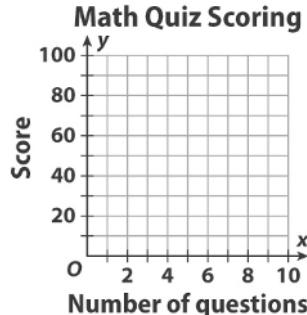


slope = _____ y -intercept = _____

slope = _____ y -intercept = _____

5. The equation $y = 15x + 10$ gives your score on a math quiz, where x is the number of questions you answered correctly.

- Graph the equation.
- Interpret the slope and y -intercept of the line.



- What is your score if you answered 5 questions correctly?

3. a. The rate of change is \$29.50 per session. The initial value is \$10.
 b. The rate of change is \$19.50 per session. The initial value is \$10.
 c. Both rates of change are constant, but the group sessions compensate more. There is a flat fee of \$10 no matter which type of session the tutor teaches.
4. After mowing 6 lawns; Miguel earns a fixed weekly salary of \$150 plus \$30 for each lawn he mows. He earns the same in fees as his fixed salary for mowing $150 \div 30 = 5$ lawns.

Practice and Problem Solving: D

1. $-\frac{1}{2}; 5$
2. 3; 6
3. $\frac{5}{6}; -5$
4. $-\frac{3}{4}; 1$
5. 2; 3
6. $\frac{1}{2}; 5$

Reteach

1. 2; 3
2. $-\frac{2}{3}; 2$

Reading Strategies

1. 0
2. 0
3. x-axis
4. $(9, 0)$
5. y-axis
6. $(0, 6)$
7. 6
8. 9
9. $-\frac{6}{9}$ or $-\frac{2}{3}$

Success for English Learners

1. They both have a zero as one of their coordinates. The x-intercept has a zero y-coordinate and the y-intercept has a zero x-coordinate.

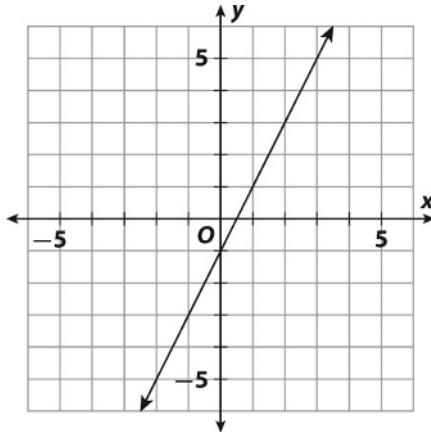
2. $-\frac{3}{4}$

3. The line slopes downward from left to right and crosses the y-axis at $\frac{9}{7}$.

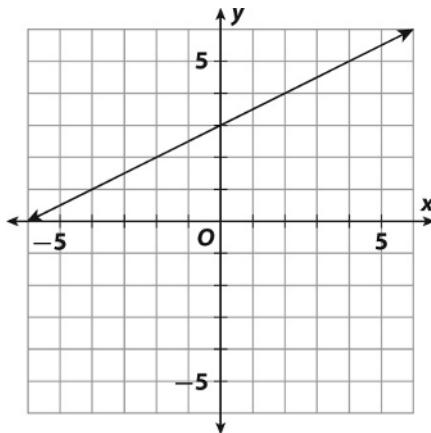
LESSON 4-3

Practice and Problem Solving: A/B

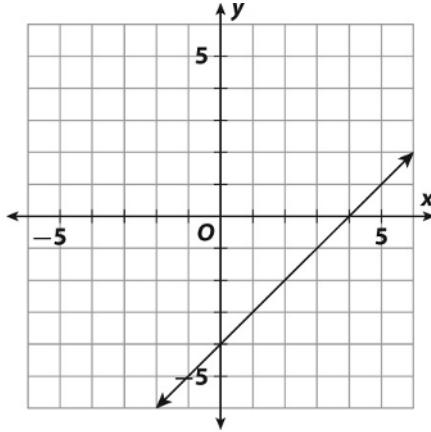
1. 2; -1



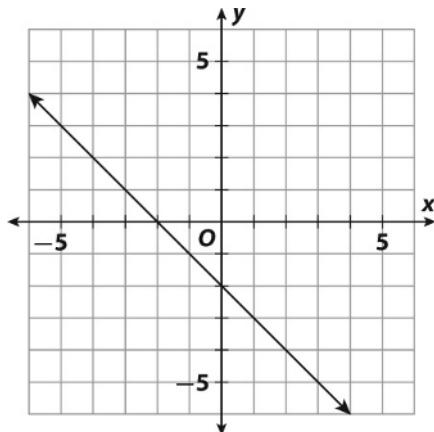
2. $\frac{1}{2}; 3$



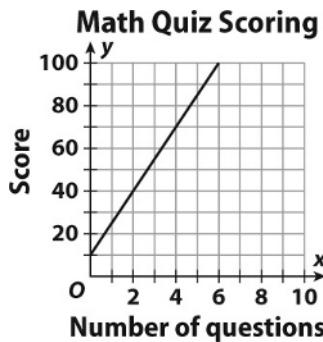
3. 1, -4



4. $-1; -2$



5. a.

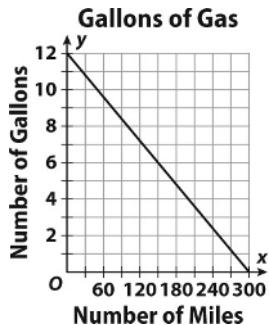


- b. The slope, 15 , means that each question is worth 15 points. The y -intercept, 10 , is the number of points given for taking the test; it is the minimum score.

c. 85

Practice and Problem Solving: C

1. a.



- b. The slope, -0.04 , means that each mile driven uses 0.04 gallons of gas. The y -intercept, 12 , is the number of gallons of gas in the car.

c. 4

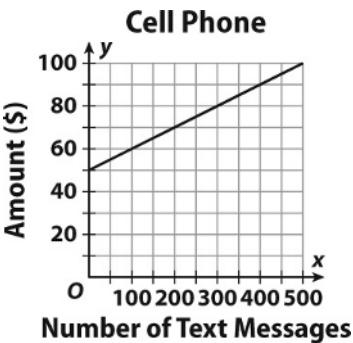
2. a.



- b. The slope, 100 , means that each month you deposit $\$100$. The y -intercept, 250 , is the amount of money you initially deposited in your account.

c. $\$950$

3. a.



- b. The slope, 0.1 , means that each text message sent or received costs $\$0.10$. The y -intercept, 50 , is the cost of your cell phone plan before adding the cost of each text message sent or received.

c. $\$81.50$

Practice and Problem Solving: D

1. $-2; 1$

