Name _____ Date _____

LESSON 4.1

Practice A

For use with the lesson "Write Linear Equations in Slope-Intercept Form"

Write an equation of the line with the given slope and *y*-intercept.

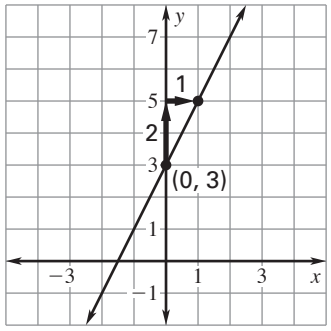
1. slope: 3; *y*-intercept: 8

2. slope: 11; *y*-intercept: 2

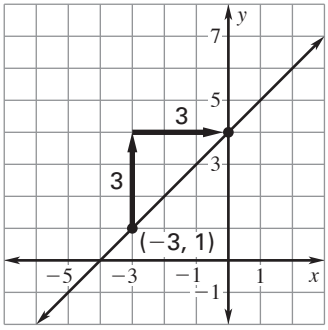
3. slope: −4; *y*-intercept: 5

Write an equation of the line shown.

4.



5.



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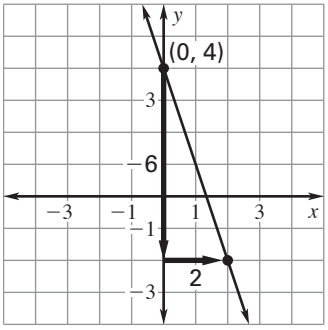

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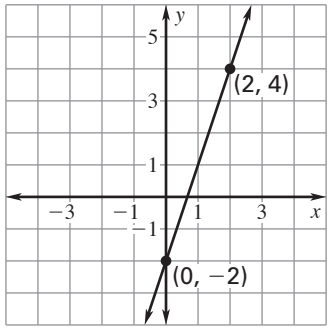

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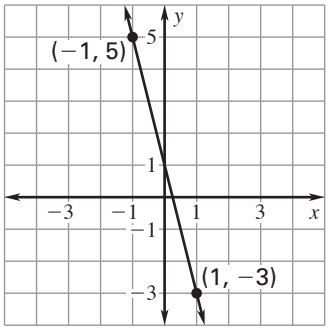
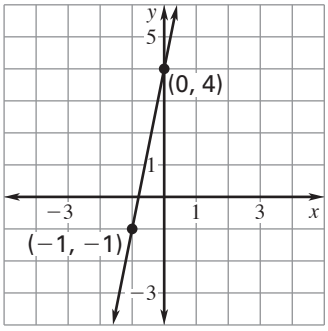


9.



Write an equation of the line that passes through the given points.

10. (0, 5), (2, 11)

11. (0, 1), (3, −5)

12. (2, 8), (5, 23)

Write an equation for the linear function *f* with the given values.

13. $f(-4) = 0, f(0) = 2$

14. $f(0) = 3, f(4) = 19$

15. $f(2) = -6, f(12) = 4$

16. **Dog Boarding** A dog kennel boards dogs for $8 a day. The kennel will also groom a dog for $12.

a. Write an equation that gives the total cost (in dollars) of lodging a dog and having it groomed once before it comes home as a function of the number of days the dog is at the kennel.

b. Find the total cost if you take your dog to the kennel for 5 days.

17. **Marathon** You are training to run in your first marathon and you want to gradually increase the number of miles you run each week. Currently, you run 20 miles each week. Your plan is to run 6 additional miles each week.

a. Write an equation that gives the total number of miles you run each week as a function of the number of weeks you have been running since you started increasing the number of miles you run each week.

b. *Identify* the dependent and independent variables in this situation.

c. Find the total number of miles you are running each week after 8 weeks of increasing the number of miles you run each week.