Name _____ Date _____

LESSON 6.4

Practice A

For use with pages 437–445

Make a table for the inverse relation.

1.

x	0	1	2	3	4
y	3	5	7	9	11

2.

x	0	1	2	3	4
y	2	1	0	-1	-2

Find an equation for the inverse relation.

3. $y = x + 1$

4. $y = 5x$

5. $y = 2x - 3$

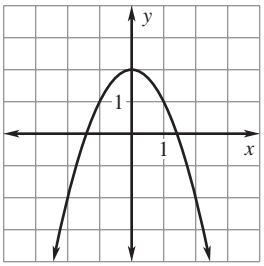
6. $y = -x + 6$

7. $y = \frac{1}{2}x + 4$

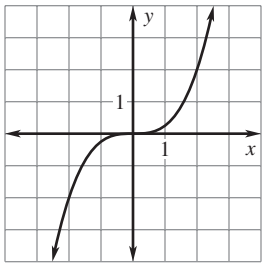
8. $y = \frac{4}{3} - \frac{1}{3}x$

Use the horizontal line test to determine whether the inverse of the graph is a function.

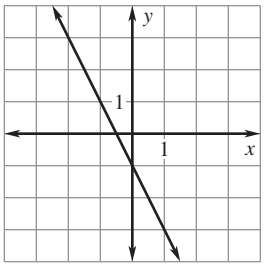
9.



10.



11.



Verify that *f* and *g* are inverse functions.

12. $f(x) = x + 2; g(x) = x - 2$

13. $f(x) = 3x; g(x) = \frac{1}{3}x$

14. $f(x) = x^3; g(x) = \sqrt[3]{x}$

15. $f(x) = 4x - 1; g(x) = \frac{1}{4}x + \frac{1}{4}$

16. $f(x) = \frac{1}{x}; g(x) = \frac{1}{x}$

17. $f(x) = 2x + \frac{1}{3}; g(x) = \frac{1}{2}x - \frac{1}{6}$

In Exercises 18 and 19, use the following information.

Conversion The formula to convert miles m to kilometers k is $m = 1.609k$.

18. Write the inverse function, which converts kilometers to miles.

19. How many kilometers is 40 miles? Round to two decimal places.

In Exercises 20 and 21, use the following information.

Geometry The formula $C = 2\pi r$ gives the circumference of a circle of radius r.

20. Write the inverse function, which gives the radius of a circle of circumference C.

21. What is the radius of a circle with a circumference of 14 inches? Round to two decimal places.