Name_____ Date _____

6.1 Practice B

In Exercises 1–3, determine whether the equation represents an exponential function. Explain.

1. $y = -6^x$

2. $y = 5(1)^x$

3. $y = 7x^3$

In Exercises 4 and 5, determine whether the table represents an exponential function. Explain.

4.

x	y
1	5
2	2
3	−1
4	−4

5.

x	y
1	24
2	12
3	6
4	3

In Exercises 6 and 7, evaluate the function for the given value of x.

6. $y = (1.2)^x; x = 2$

7. $f(x) = \frac{1}{2}(8)^x; x = -2$

In Exercises 8–10, graph the function. Compare the graph to the graph of the parent function. Describe the domain and range of f.

8. $f(x) = 5\left(\frac{1}{4}\right)^x$
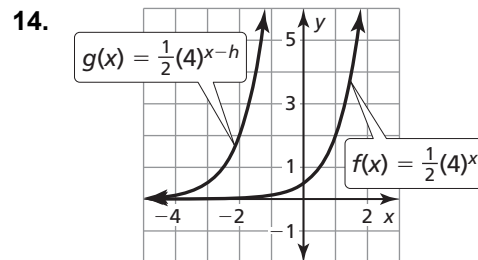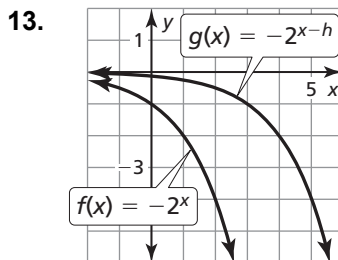
9. $f(x) = -\frac{1}{3}(3)^x$

10. $f(x) = \frac{4}{3}(6)^x$

In Exercises 11 and 12, graph the function. Describe the domain and range.

11. $f(x) = -6\left(\frac{1}{3}\right)^{x-1} - 4$

12. $f(x) = 2(5)^{x+1} - 3$

In Exercises 13 and 14, compare the graphs. Find the value of h, k, or a.

13.

$g(x) = -2^{x-h}$

$f(x) = -2^x$

14.

$g(x) = \frac{1}{2}(4)^{x-h}$

$f(x) = \frac{1}{2}(4)^x$

15. Graph the function $f(x) = 2^x$. Then graph $g(x) = 2^{x-3}$. How are the y-intercept, domain, and range affected by the transformation?