Name _____ Date _____

6.1 Practice A

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

1. $y = 9x$ **2.** $y = 2(3)^x$ **3.** $y = (-2)^x$

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

4.

x	*y*
1	3
2	9
3	27
4	81

5.

x	*y*
1	4
2	6
3	8
4	10

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

6. $y = 2(4)^x; x = -2$ **7.** $f(x) = -3(5)^x; x = 3$

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

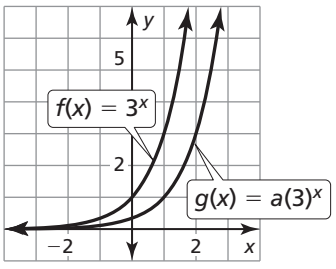
8. $f(x) = -2(0.5)^x$ **9.** $f(x) = -\left(\frac{1}{3}\right)^x$ **10.** $f(x) = \frac{1}{2}(6)^x$

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

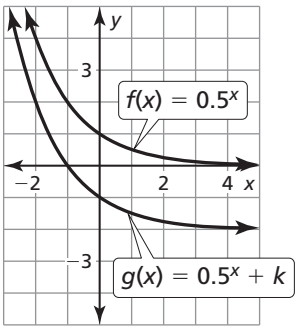
11. $f(x) = 2^x + 3$ **12.** $f(x) = 3^{x-2}$

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

13.



14.



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