

NAME: \_\_\_\_\_

HW 9.2 – DAY 2

DATE: \_\_\_\_\_

ALGEBRA

**Describe the transformation(s) of  $y = 2^x$  required for the following functions.**

1.  $f(x) = -2^x + 3$

2.  $g(x) = 2^{x+3}$

3.  $y = \left(\frac{1}{2}\right)^{x-1} - 2$

4.  $y = -3(2)^x + 2$

5.  $y = -2^{x-2} - 9$

6.  $f(x) = \left(\frac{1}{2}\right)^{x+2} - 1$

7.  $y = 2^{x+4} + 3$

8.  $g(x) = 2^x + 6$

**Which exponential function is represented in the given graph?**

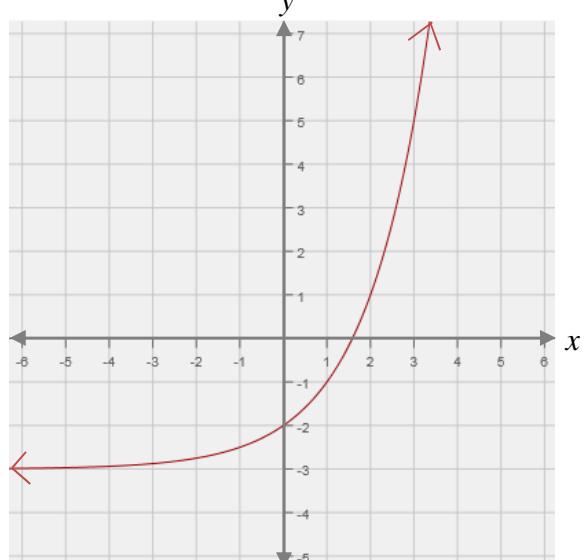
9.

a.  $y = 2^{x-3}$

b.  $y = 2^x + 3$

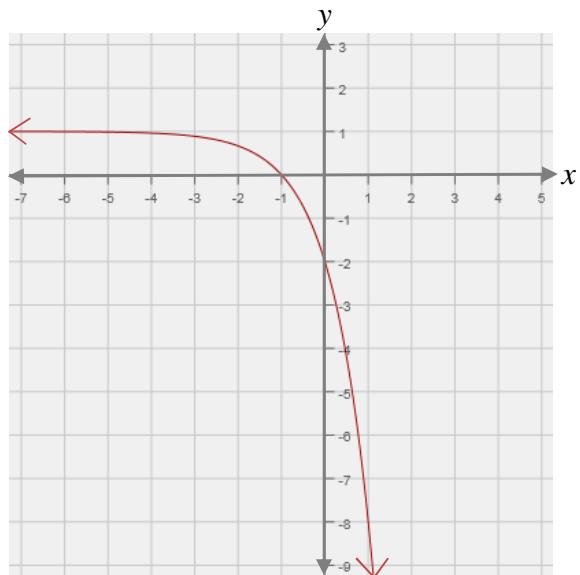
c.  $y = 2^x - 3$

d.  $y = 2^{x+3}$



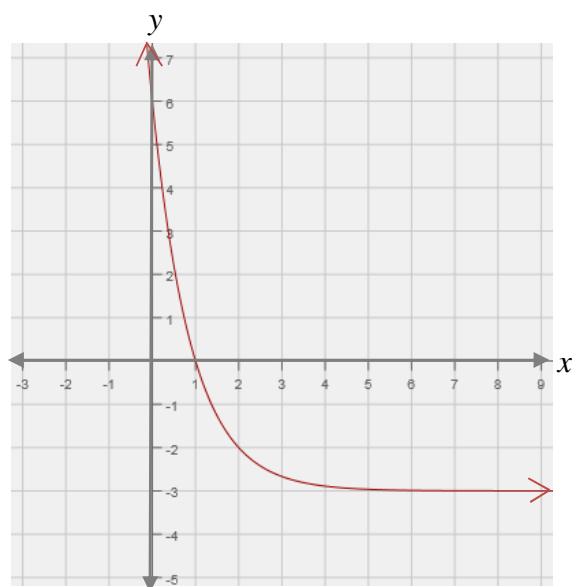
10.

- a.  $y = -2^x - 2$
- b.  $y = -3^x + 1$
- c.  $y = -3^{x+1} + 1$
- d.  $y = -2^{x+1} + 1$



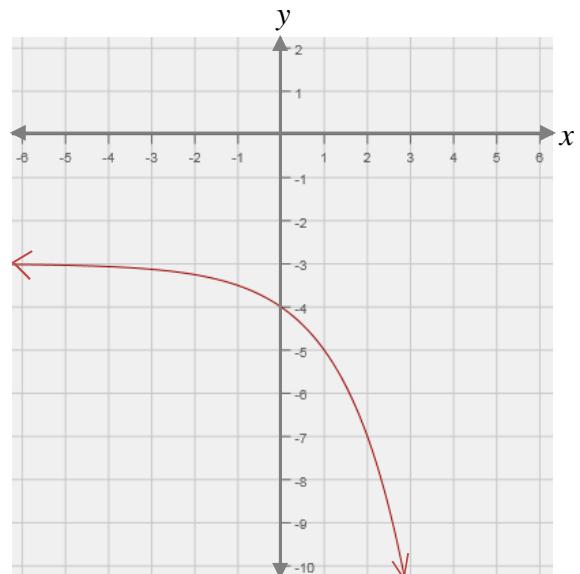
11.

- a.  $y = \left(\frac{1}{3}\right)^{x-2} - 3$
- b.  $y = \left(\frac{1}{3}\right)^{x-3} - 2$
- c.  $y = \left(\frac{1}{2}\right)^{x-2} - 3$
- d.  $y = \left(\frac{1}{2}\right)^{x-3} - 2$



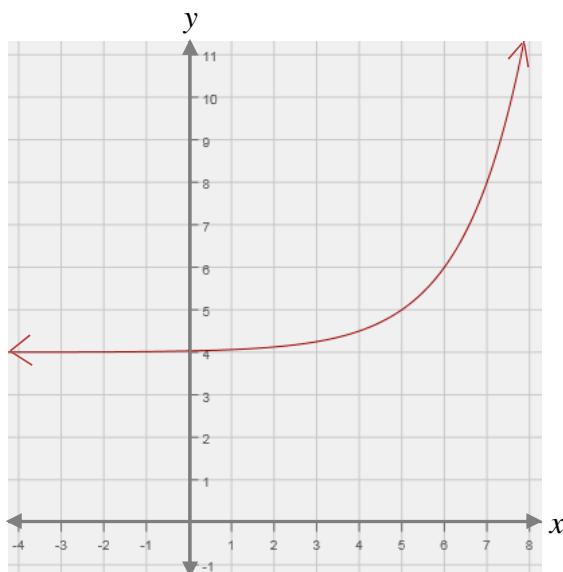
12.

- a.  $y = -2^x - 3$
- b.  $y = 2^x - 3$
- c.  $y = 2^x + 3$
- d.  $y = -2^x + 3$

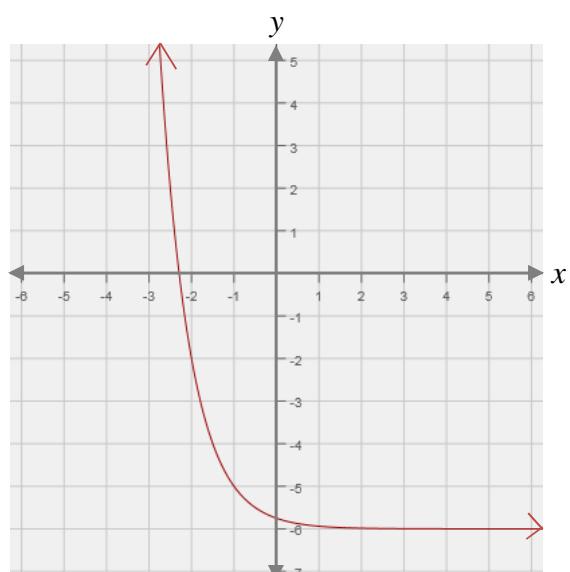


**Write the equation for the given exponential function.**

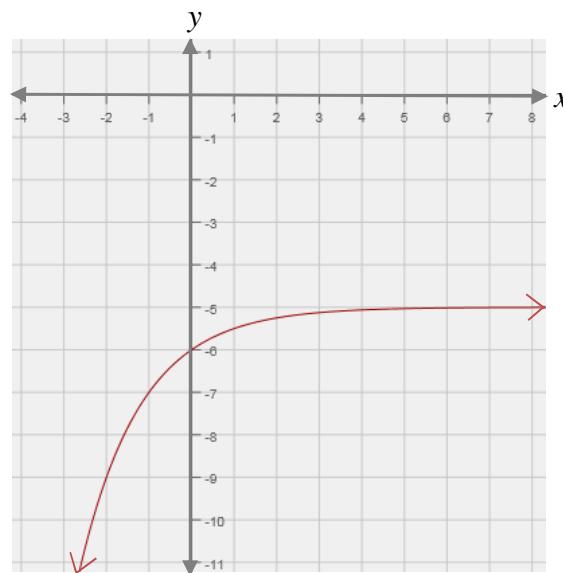
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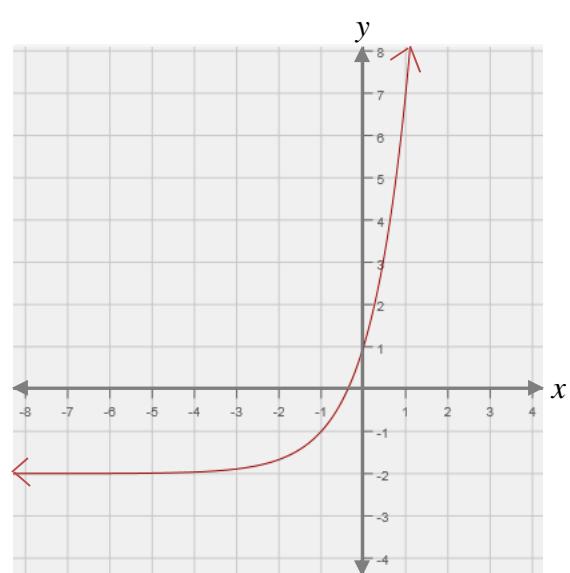
14.



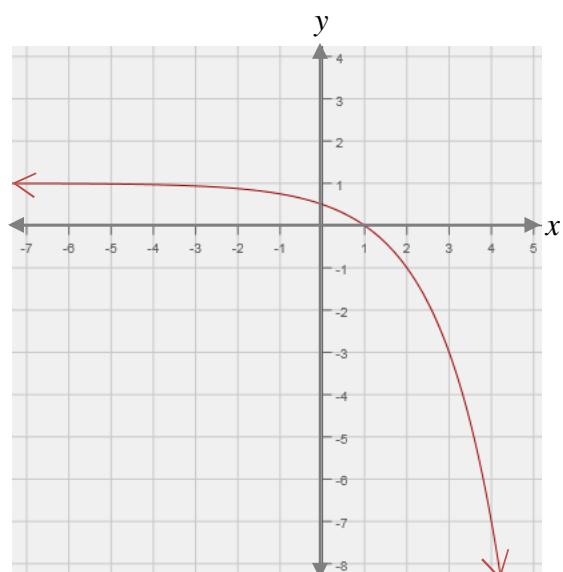
15.



16.



17.



18.

