Modeling Logarithmic Functions

Pre-Assessment

Circle the letter of the best answer.

1. Which logarithmic expression corresponds to the exponential function $f(x) = 10^x$?

   a. $\log_x f(x) = 10$

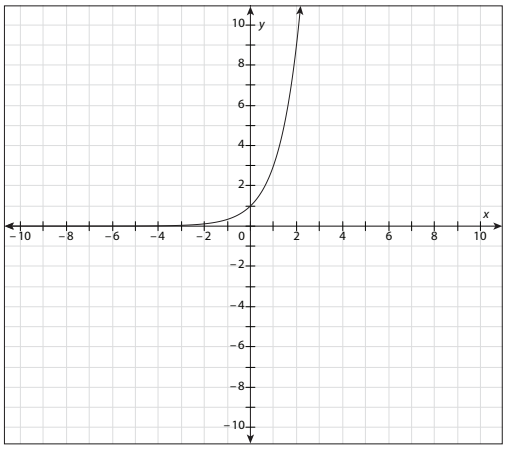
   b. $\log_{10} f(x) = x$

   c. $\log_{10} f(x) = 10$

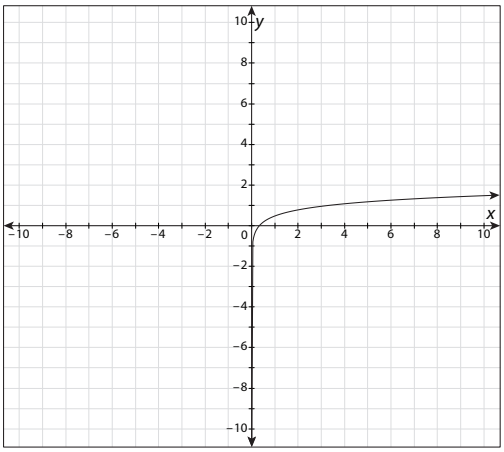
   d. $\log_x f(x) = x$

2. Which is the graph of a logarithmic function?

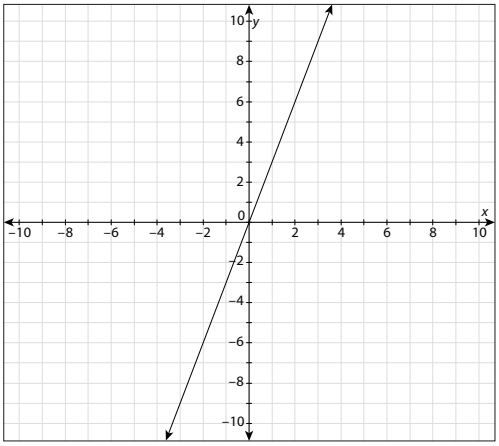
   a.



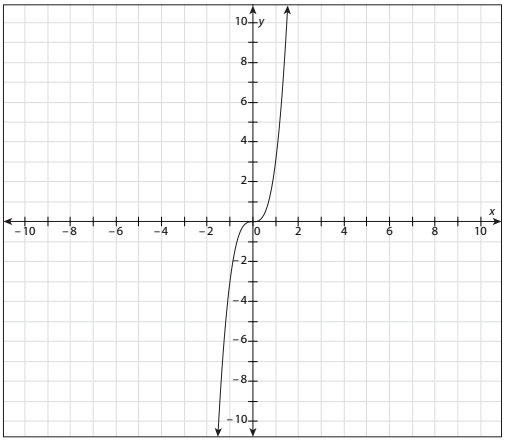
   c.



   b.



   d.



continued

3. Which table row represents data points on the graph of a logarithmic function?

x	–2	–1	0	1	2
Q	—	—	—	0.70	1
R	0.08	0.4	2	10	50
S	–18	–0.5	0	0.5	18
T	–2	–1	0	1	2

a. Q

b. R

c. S

d. T

4. Which exponential function corresponds to the logarithmic expression $\log_4 g(x) = x + 3$?

a. $g(x) = 3 \bullet 4^x$

b. $g(x) = 4 \bullet x^3$

c. $g(x) = 4^{3x}$

d. $g(x) = 4^{x+3}$

5. What is the base of the natural logarithm?

a. 2

b. e

c. π

d. 10