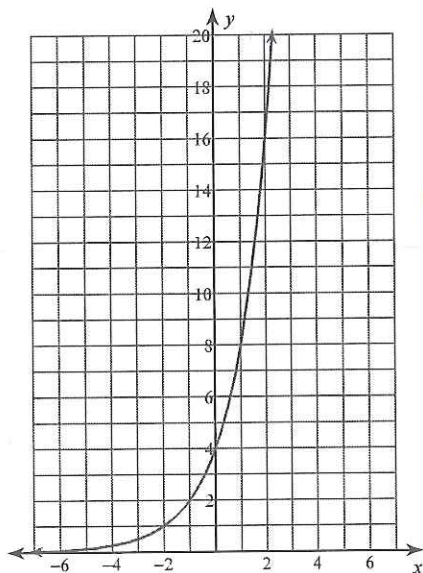


Graphing Exponential Functions

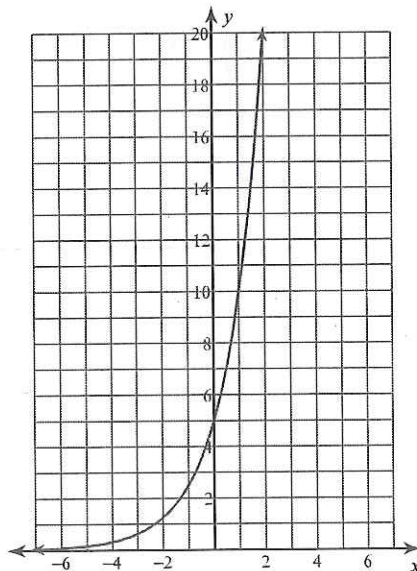
Sketch the graph of each function.

1) $y = 4 \cdot 2^x$

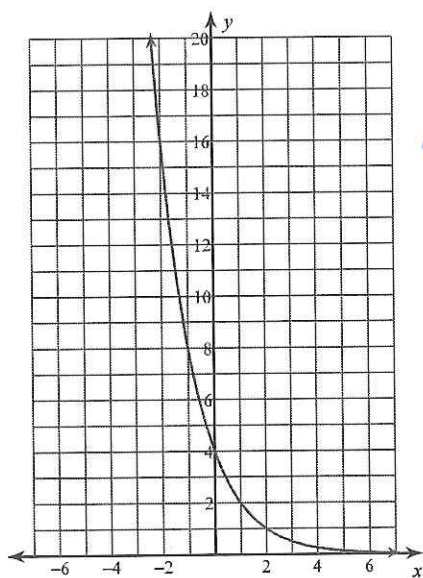
a) ∞

b) 0

2) $y = 5 \cdot 2^x$



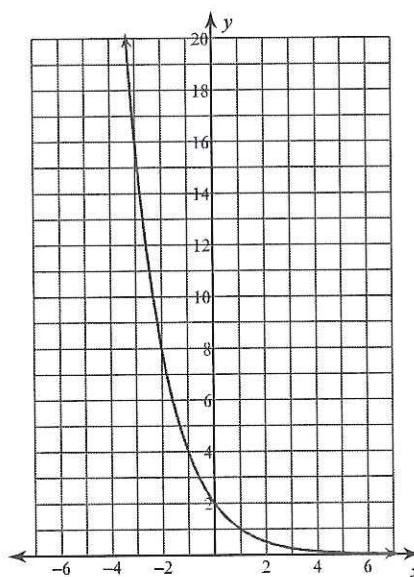
3) $y = 4 \cdot \left(\frac{1}{2}\right)^x$



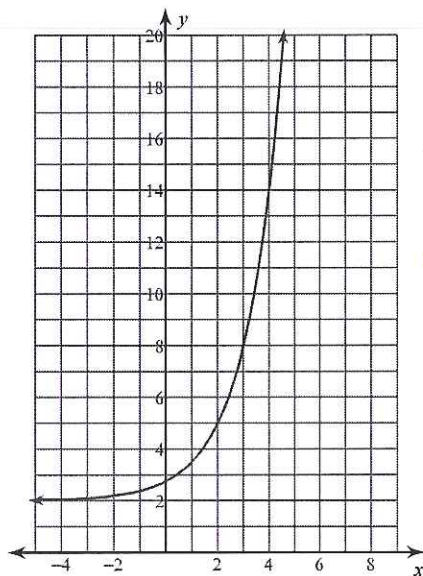
a) 0

b) ∞

4) $y = 2 \cdot \left(\frac{1}{2}\right)^x$



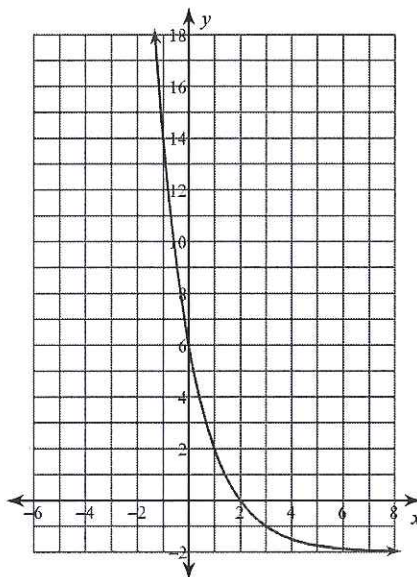
5) $y = 3 \cdot 2^{x-2} + 2$



a) ∞

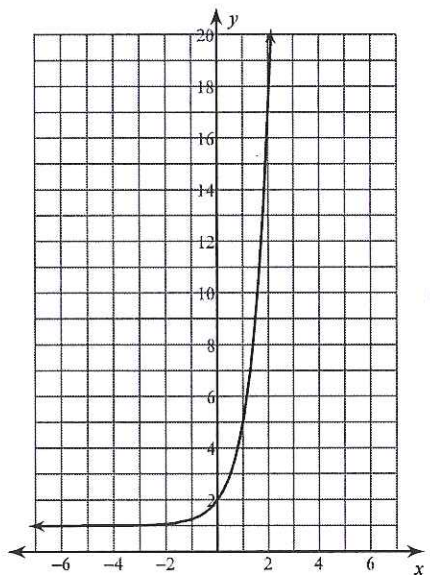
b) 2

6) $y = 4 \cdot \left(\frac{1}{2}\right)^{x-1} - 2$



Write an equation for each graph.

7)

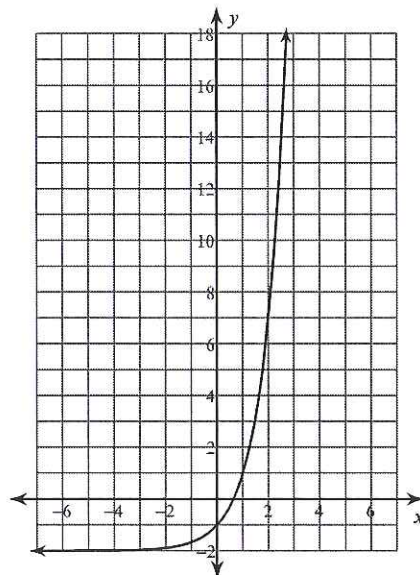


a) ∞

b) 1

$y = 4^x + 1$

8)



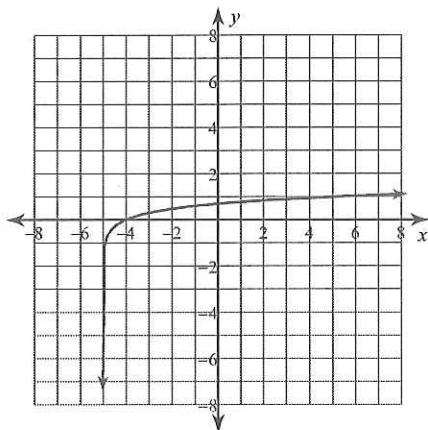
$y = 3^x - 2$

Graphing Logarithms

Date _____ Period _____

Sketch the graph of each function.

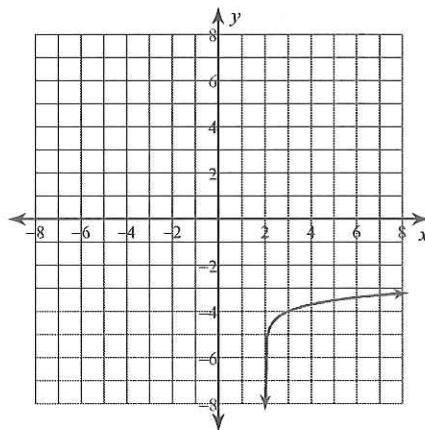
1) $y = \log(x + 5)$



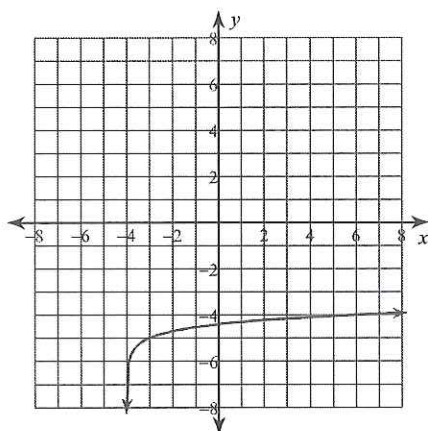
a) 1

b) ∞ c) $-\infty$

2) $y = \log(x - 2) - 4$



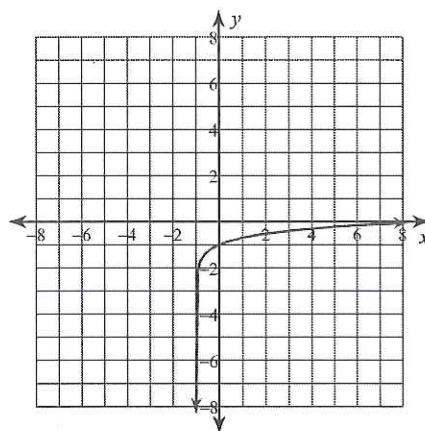
3) $y = \log(x + 4) - 5$



a) -4

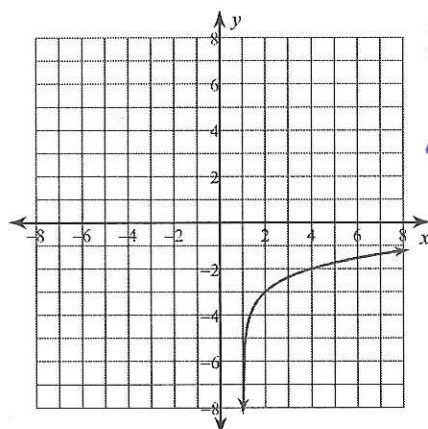
b) ∞ c) $-\infty$

4) $y = \log(x + 1) - 1$



Identify the domain and range of each. Then sketch the graph.

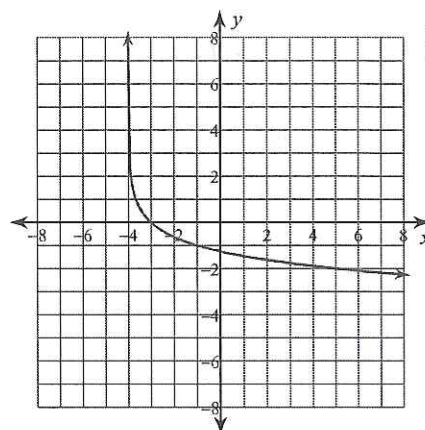
5) $y = \log_3(x - 1) - 3$

Domain: $x > 1$
Range: All reals

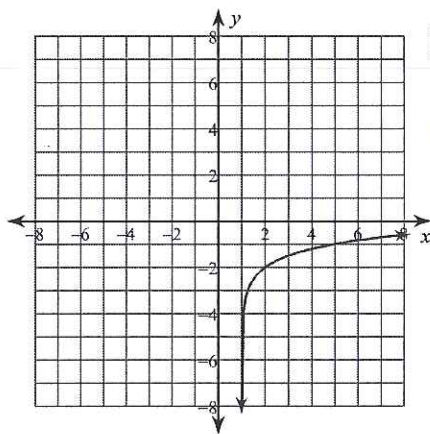
a) -1

b) ∞ c) $-\infty$

6) $y = \log_{\frac{1}{3}}(x + 4)$

Domain: $x > -4$
Range: All reals

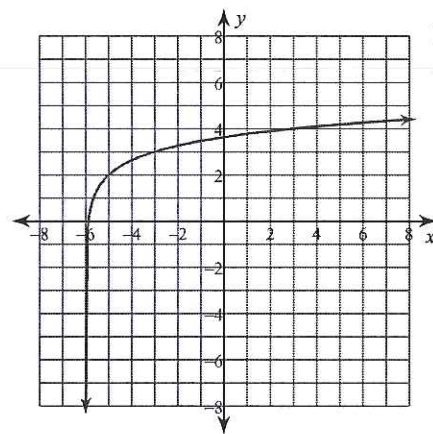
7) $y = \log_4 (x - 1) - 2$



Domain: $x > 1$
Range: All reals

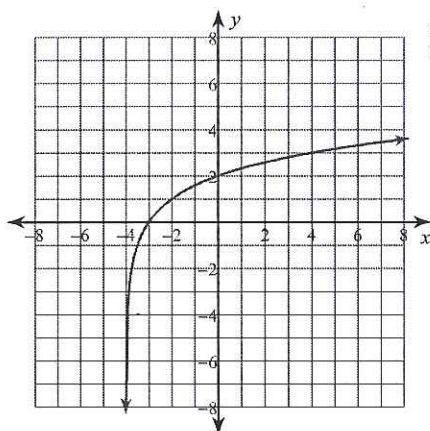
- a) -1
b) ∞
c) $-\infty$

8) $y = \log_3 (x + 6) + 2$



Domain: $x > -6$
Range: All reals

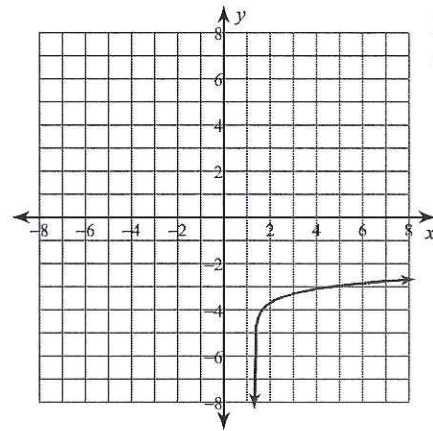
9) $y = \log_2 (4x + 16) - 2$



Domain: $x > -4$
Range: All reals

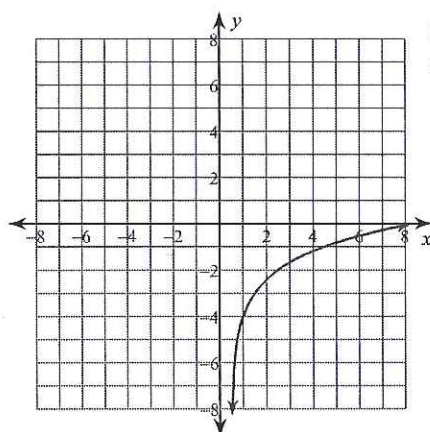
- a) 2
b) ∞
c) $-\infty$

10) $y = \log (3x - 4) - 4$



Domain: $x > \frac{4}{3}$
Range: All reals

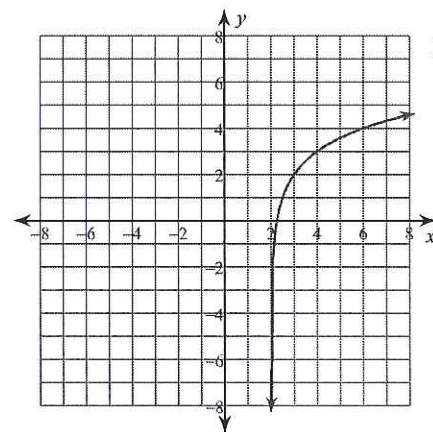
11) $y = \log_2 (2x - 1) - 4$



Domain: $x > \frac{1}{2}$
Range: All reals

- a) -4
b) ∞
c) $-\infty$

12) $y = \log_2 (4x - 8)$



Domain: $x > 2$
Range: All reals