

9.4 CA2 - Intro to Logarithms

Date _____ Period _____

Rewrite each equation in exponential form.

1) $\log_{17} 289 = 2$

2) $\log_{64} 8 = \frac{1}{2}$

Rewrite each equation in logarithmic form.

3) $\left(\frac{1}{13}\right)^2 = \frac{1}{169}$

4) $4^{-2} = \frac{1}{16}$

Evaluate each expression.

5) $\log_5 25$

6) $\log_3 9$

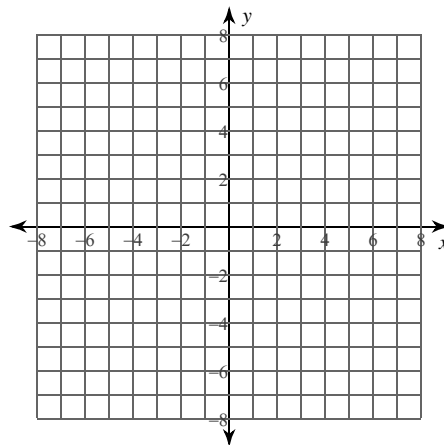
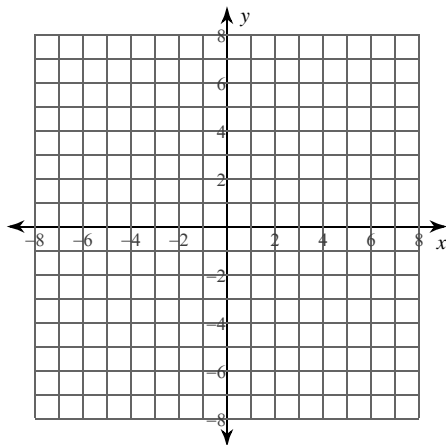
7) $\log_4 \frac{1}{64}$

8) $\log_{125} \frac{1}{5}$

Sketch the graph and identify the domain and range of each. Include the vertical asymptote on your graph.

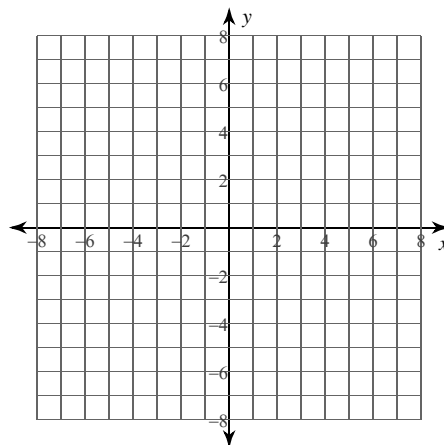
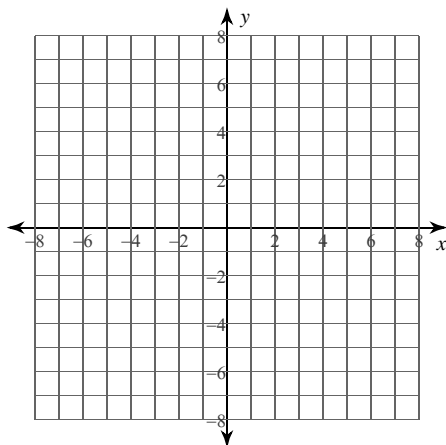
9) $f(x) = \log_3 (x - 1) - 3$

10) $f(x) = \log_6 (x - 1) - 1$



11) $f(x) = \log_2 (x + 6) + 1$

12) $f(x) = \log_3 (x + 5) + 3$



Answers to 9.4 CA2 - Intro to Logarithms (ID: 2)

1) $17^2 = 289$

2) $64^{\frac{1}{2}} = 8$

3) $\log_{\frac{1}{13}} \frac{1}{169} = 2$

4) $\log_4 \frac{1}{16} = -2$

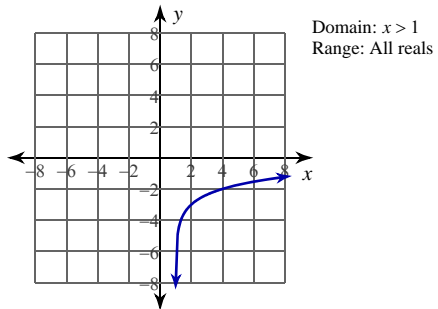
5) 2

6) 2

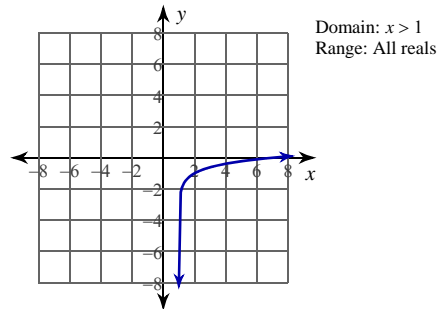
7) -3

8) $-\frac{1}{3}$

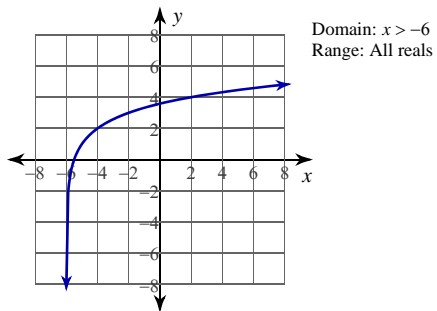
9)



10)



11)



12)

