LOGS Name_____

QUIZ

Rewrite each equation in logarithmic form.

1) $13^{b} = 98$

Rewrite each equation in exponential form.

2) $\log_{y} x = 17$

Condense each expression to a single logarithm.

3) $6\log z + \dfrac{\log x}{2}$

Expand each logarithm.

4) $\log_{5} \left(z\sqrt[3]{x \cdot y}\right)$

Evaluate each expression.

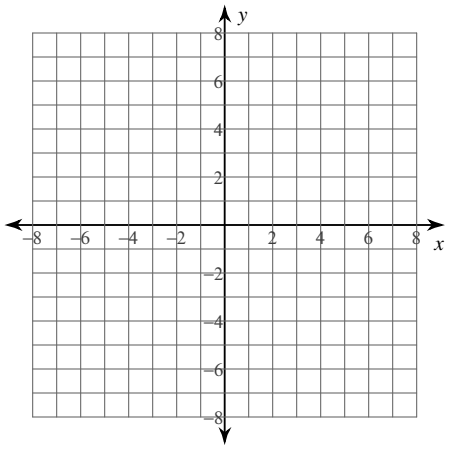
5) $\log_{2} \dfrac{1}{64}$

Solve each equation.

6) $\log_{9} (x + 24) + \log_{9} x = 2$

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

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



Use the properties of logarithms and the values below to find the logarithm indicated. Do not use a calculator to evaluate the logs.

8) $\log_{5} 6 \approx 1.1$

$\log_{5} 9 \approx 1.4$

$\log_{5} 7 \approx 1.2$

Find $\log_{5} \dfrac{6}{25}$

Answers to QUIZ

1) $\log_{13} 98 = b$

2) $y^{17} = x$

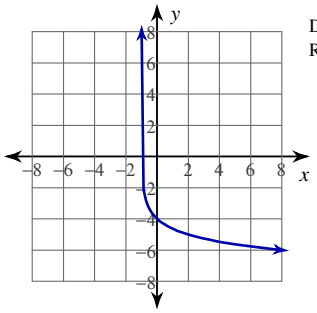
3) $\log \left(z^6\sqrt{x}\right)$

4) $\log_5 z + \frac{\log_5 x}{3} + \frac{\log_5 y}{3}$

5) -6

6) $\{3\}$

7)



Domain: $x > -1$
Range: All reals

8) -0.9