

# Logarithmic Equations

**Answer Key**

Solve for x.

1)  $\log_x 729 = 6$

$$\underline{x = 3}$$

2)  $\log_8 2 = x$

$$\underline{x = \frac{1}{3}}$$

3)  $\log_6 216 = x$

$$\underline{x = 3}$$

4)  $\log_x \left(\frac{1}{4}\right) = -2$

$$\underline{x = 2}$$

5)  $\log_5 \left(\frac{1}{25}\right) = x$

$$\underline{x = -2}$$

6)  $\log_7 x = 3$

$$\underline{x = 343}$$

7)  $\log_{25} x = \frac{1}{2}$

$$\underline{x = 5}$$

8)  $\log_x 100 = 2$

$$\underline{x = 10}$$

9)  $\log_x 64 = 3$

$$\underline{x = 4}$$

10)  $\log_5 x = 4$

$$\underline{x = 625}$$