

$$3^x = 81$$

$$x =$$

log

$$4^x = 1$$

$$x =$$

log

$$10^x = \frac{1}{10,000}$$

$$x =$$

log

$$7^x = 0$$

$$x =$$

log

$$2^x = -2$$

$$x =$$

log

$$3^x = 81$$

$$x = 4$$

$$\log_3 81 = 4$$

$$4^x = 1$$

$$x = 0$$

$$\log_4 1 = 0$$

$$10^x = \frac{1}{10,000}$$

$$x = -4$$

$$\log\left(\frac{1}{10,000}\right) = -4$$

$$7^x = 0$$

$$x = \text{Undefined}$$

$$\log_7 0 = \text{undefined}$$

$$2^x = -2$$

$$x = \text{Undefined}$$

$$\log_2 -2 = \text{Undefined}$$