

Solve for x.

$$\log_x 25 = 2$$

$$\sqrt{x^2} = \sqrt{25}$$
$$\boxed{x=5}$$

one log term
in the whole
problem

- Change to
an exponential -

$$x^2 = 5^2$$



Solve for x.

$$\log_5 0.04 = x$$

$$5^x = .04$$

$$5^x = \frac{4}{100} = \frac{1}{25}$$

$$5^x = \frac{1}{25}$$

$$5^x = \frac{1}{5^2}$$

$$5^x = 5^{-2}$$

$$x = -2$$



Solve for x.

$$\log_3 \left(\frac{1}{81} \right) = x$$



Solve:

$$\log_{64} x = \frac{1}{3}$$

$$64^{\frac{1}{3}} = x$$
$$\sqrt[3]{64}$$
$$4 = x$$



Solve for x.

$$\log_3(5x - 1) = 2$$

$$3^2 = 5x - 1$$

$$9 = 5x - 1$$

$$+1$$
$$\frac{10}{5} = \frac{5x}{5}$$

$$2 = x$$





Solve:

$$\log_2(7x-2) = 5$$

$$\frac{2 \log_2(7x-2)}{2} = \frac{10}{2}$$

$$\log_2(7x-2) = 5$$

$$2^5 = 7x-2$$

$$32 = 7x-2$$

$$\frac{34}{7} = \frac{7x}{7}$$

$$\frac{34}{7} = x$$