

Logarithm - Solve

L1ES1

Solve for x.

Example 1:

$$\begin{aligned}\log_5 25 &= x \\ 5^x &= 25 \\ 5^x &= 5^2 \\ x &= \mathbf{2}\end{aligned}$$

Example 2:

$$\begin{aligned}\log_4 x &= 2 \\ 4^2 &= x \\ x &= \mathbf{16}\end{aligned}$$

Solve for x.

1) $\log_x 32 = 5$

x =

2) $\log_3 x = 3$

x =

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

x =

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

x =

5) $\log_x 36 = 2$

x =

6) $\log_2 x = 4$

x =

7) $\log_9 x = \frac{1}{2}$

x =

8) $\log_x 2 = \frac{1}{3}$

x =

9) $\log_6 x = 2$

x =

10) $\log_4 256 = x$

x =