

**Logarithm - Solve**

L1ES3

Solve for x.

Example 1:

$$\begin{aligned}\log_2 x &= 3 \\ 2^3 &= x \\ x &= \mathbf{8}\end{aligned}$$

Example 2:

$$\begin{aligned}\log_2 \left(\frac{1}{8}\right) &= x \\ 2^x &= \frac{1}{8} \\ 2^x &= 2^{-3} \\ x &= \mathbf{-3}\end{aligned}$$

Solve for x.

1)  $\log_3 27 = x$

x = 

2)  $\log_4 x = 2$

3)  $\log_9 \left(\frac{1}{81}\right) = x$

x = 

5)  $\log_x 100 = 2$

x = 

7)  $\log_{16} x = \frac{1}{2}$

x = 

9)  $\log_7 x = 2$

x = 

10)  $\log_x 64 = 2$

x = 

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x = **3**

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x = **-2**

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x = **10**

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x = **4**

10)  $\log_x 64 = 2$

x = **8**

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