

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 =

PREVIEW

Gain complete access to the largest
collection of worksheets in all subjects!

Members, please
log in to
download this
worksheet.

Not a member?
Please sign up to
gain complete
access.

www.mathworksheets4kids.com

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 = **3**

2) $\log_4 x = 2$

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

x = **-2**

5) $\log_x 100 = 2$

x = **10**

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

x = **4**

x = **27**

9) $\log_7 x = 2$

x = **49**

10) $\log_x 64 = 2$

x = **8**

PREVIEWGain complete access to the largest
collection of worksheets in all subjects!Members, please
log in to
download this
worksheet.Not a member?
Please sign up to
gain complete
access.www.mathworksheets4kids.com