

Evaluating Expressions

L1ES1

Example :

Evaluate the expression : $\log_7 49$

$$\begin{aligned}\log_7 49 &= \log_7 7^2 \\ &= 2 \log_7 7 \\ &= 2(1) \\ &= \mathbf{2}\end{aligned}$$

$$\log_a b^c = c \log_a b$$

$$\log_a a = 1$$

Evaluate each expression.

1) $\log_5 125$

Answer

2) $\log_2 \left(\frac{1}{16}\right)$

Answer

3) $\log_2 \left(\frac{1}{128}\right)$

Answer

4) $4 \log_9 3$

Answer

5) $\log_4 256$

Answer

6) $\log_3 \left(\frac{1}{243}\right)$

Answer

7) $4 \log_2 4$

Answer

8) $\log_2 64$

Answer

9) $\log_6 36$

Answer

10) $2 \log_4 2$

Answer