Evaluating Expressions

L1DS3

Example :

Evaluate the expression : $\log_{64} 4^{-6}$

$\log_{64} 4^{-6} = \log_{64} 64^{-2}$

$= -2 \log_{64} 64$

$= \mathbf{-2}$

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

$\log_a a = 1$

Evaluate each expression.

1) $4 \log_{216} 6$

Answer

2) $\log_{\frac{1}{8}} 2^{-8}$

3) $2 \log_{\frac{1}{2}} \left(\frac{1}{16}\right)$

Answer

5) $\log_{16} 2^{-8}$

Answer

7) $3 \log_{\frac{1}{4}} 8^{-2}$

Answer

Answer

9) $\log_{64} 8^3$

Answer

10) $3 \log_{\frac{1}{3}} 9$

Answer