Name : _____ Score : _____

L1MS2

Evaluating Expressions

Example :

Evaluate the expression : $3 \log_{64} 2$

$3 \log_{64} 2 = \log_{64} 2^3$

$= \log_{64} 8$

$= \log_{64} (64)^{\frac{1}{2}}$

$= \frac{1}{2}$

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

$\log_a a = 1$

Evaluate each expression.

1) $\log_{125} \left(\frac{1}{5}\right)$

Answer

2) $\log_{16} 4$

Answer

3) $\log_{128} 2$

Answer

5) $\log_8 2^{-6}$

Answer

7) $\log_{\frac{1}{2}} \left(\frac{1}{32}\right)$

Answer

Answer

9) $\log_{27} 3$

Answer

10) $-4 \log_{81} 3$

Answer

Name : _____ **Answer key** Score : _____

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Answer 5

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Answer -1