

Evaluating Expressions

L2ES1

Example :

Evaluate the expression : $\log_2 8 + \log_3 9$

$$\log_2 8 + \log_3 9 = \log_2 2^3 + \log_3 3^2$$

$$= 3 \log_2 2 + 2 \log_3 3$$

$$= 3(1) + 2(1)$$

$$= \mathbf{5}$$

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

$$\log_a a = 1$$

Evaluate each expression.

1) $2 \log_5 25 - \log_4 16$

Answer

2) $\log_9 \left(\frac{1}{3}\right) \cdot \log_7 49$

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3) $\frac{\log_3 27}{2 \log_2 4}$

Answer

5) $\left(\frac{1}{2}\right) \log_2 16 - \log_3 9$

Answer

7) $\frac{2 \log_4 16}{\log_7 49}$

Answer

9) $\log_9 729 - 2 \log_2 128$

Answer

10) $\log_6 216 \cdot \log_5 125$

Answer