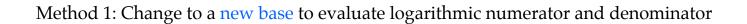
Change of Base Formula

$$\log_b x = \frac{\log_a x}{\log_a b}$$

Method 1: Change to a new base to evaluate logarithmic numerator and denominator

log₄ 8

log₃ 27

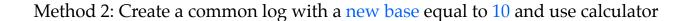


$$log_{\frac{1}{8}}32$$

$$log_9 \frac{1}{81}$$

Method 2: Create a common log with a new base equal to 10 and use calculator

$$log_3 7$$



$$\log_7 9$$
 $\log_{12} 42$

Change of Base Formula

$$\log_b x = \frac{\log_a x}{\log_a b}$$

base =
$$b$$
; argument = x
new base = a

Method 1: Change to a new base to evaluate logarithmic numerator and denominator Method 2: Create a common log with a new base equal to 10 and use calculator