

Change-of-Base formula:

$$\log_a M = \frac{\log_b M}{\log_b a}$$

To evaluate a logarithm using the **common log key** on your calculator, substitute $b=10$ in the above formula:

$$\log_a M = \frac{\log M}{\log a}$$

For example, $\log_2 35 = \frac{\log 35}{\log 2} \approx 5.129$

To evaluate a logarithm using the **natural log key** on your calculator, substitute $b=e$ in the above formula:

$$\log_a M = \frac{\ln M}{\ln a}$$

For example, $\log_8 25 = \frac{\ln 25}{\ln 8} \approx 1.548$