

Since your 1-line scientific calculator only returns common or natural logarithms, how can you find a logarithm with other bases? You can use the following theorem.

CHANGE OF BASE THEOREM FOR LOGARITHMS

Let x be any positive number; and if a and b are positive real numbers other than one, then

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

Since your calculator has base 10 and base e keys for logarithms, you will most likely let b in the theorem above be 10 or e .

$$\log_a x = \frac{\log x}{\log a} \qquad \log_a x = \frac{\ln x}{\ln a}$$