

A table of values for $y = 10^x$ can be used to solve equations such as $10^x = 1000$ and $10^x = 1/100$. However, to solve equations such as $10^x = 2.3$, a logarithm is needed. With logarithms, you can write an exponential equation in an equivalent logarithmic form.

Exponential Form

$$10^3 = 1000$$

Logarithmic Form

$$3 = \log_{10} 1000$$