

Logarithm

The '*logarithm of x to base b* ' is what you have to raise b to the power of in order to get x . In symbols,

$$\log_b x = a \iff b^a = x.$$

Here, b is a positive real number other than 1 and x is a positive real number.

Being closely related to powers (indices), there are [logarithm laws](#) corresponding to the [index laws](#).