

An expression that can be written in the form...

$$\log_b x$$

argument
base

"log base b of x "

What's the purpose of the logarithmic function

$$2^x = 4 \quad x = 2$$

$$2^x = 6 \quad x = ??$$

$$2^x = 8 \quad x = 3$$

The logarithmic function allows us to find the exponent to which a specific base must be raised to give a specific value.

$$x = \log_2 6 \quad x \approx 2.5849$$