

The simple but often forgotten truth about logarithms is...

... that they are just exponents.

To what power must 2 be raised to produce 8? 3

$$2^? = 8$$

$$2^3 = 8$$

$$3 = \log_2 8$$

↑
logarithm

3 is the logarithm of 8 to the base 2.

$$b^y = x \iff y = \log_b x$$

Definition