

Logarithmen

Schreibweise

$$x = \log_a(b) \Leftrightarrow a^x = b$$

Rechengesetze

$$\log(a \cdot b) = \log(a) + \log(b)$$

$$\log\left(\frac{a}{b}\right) = \log(a) - \log(b)$$

$$\log(a^x) = x \cdot \log(a)$$

Logarithmische Identitäten

$$a^{\log_a b} = b$$

$$\log_a(a^b) = b$$

Spezielle Basen

$$\log_{10}x = \lg(x)$$

$$\log_e x = \ln(x)$$

Basiswechsel

$$\log_a b = \frac{\log_c b}{\log_c a}$$