

	Potenzen	Wurzeln	Logarithmen
	$a^n := \underbrace{a \cdot a \cdot \dots \cdot a}_{n \text{ Faktoren}}$ $a^0 := 1 \quad a^{-n} := \frac{1}{a^n}$	$x^n = y \Leftrightarrow x = \sqrt[n]{y}$ $a^{\frac{1}{n}} := \sqrt[n]{a} \quad a > 0$	$a^x = y \Leftrightarrow \log_a(y) = x$ $\ln(y) := \log_e(y)$ $\lg(y) := \log_{10}(y)$
1	$a^n \cdot a^m = a^{n+m}$		$\log_a(u \cdot v) = \log_a(u) + \log_a(v)$
2	$\frac{a^n}{a^m} = a^{n-m}$		$\log_a\left(\frac{u}{v}\right) = \log_a(u) - \log_a(v)$
3	$(ab)^n = a^n b^n$	$\sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$	
4	$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$	$\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$	
5	$(a^n)^m = a^{n \cdot m} = (a^m)^n$	$\sqrt[n]{a^m} = a^{\frac{m}{n}} = (\sqrt[n]{a})^m$	$\log_a(u^n) = n \log_a(u)$