

Potenzregeln

$$a^n \cdot a^m = a^{n+m}$$

$$(a^n)^m = a^{n \cdot m}$$

$$\frac{a^n}{a^m} = a^{n-m}$$

$$\frac{a}{a} = \frac{a^1}{a^1} = a^{1-1} = a^0 = 1$$

$$a^n \cdot b^n = (ab)^n$$

$$\frac{a^n}{b^n} = \left(\frac{a}{b} \right)^n$$

$$a^{\frac{m}{n}} = \sqrt[n]{a^m}$$

$$a^{\frac{1}{n}} = \sqrt[n]{a}$$

$$-a^{\frac{1}{n}} = -\sqrt[n]{a}$$

$$a^{-n} = \frac{1}{a^n}$$

$$a^{-\frac{1}{n}} = \frac{1}{\sqrt[n]{a}}$$