

Properties of Radicals

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

$$\sqrt[m]{\sqrt[n]{a}} = \sqrt[nm]{a}$$

$$\sqrt[n]{ab} = \sqrt[n]{a}\sqrt[n]{b}$$

$$\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$$

$$\sqrt[n]{a^n} = a, \text{ if } n \text{ is odd}$$

$$\sqrt[n]{a^n} = |a|, \text{ if } n \text{ is even}$$