

Свойства корней:

$$\sqrt{a \cdot b} = \sqrt{a} \cdot \sqrt{b}$$

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

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

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

$$\sqrt{a^{2n}} = |a^n|$$

$$(\sqrt[n]{a})^k = \sqrt[n]{a^k} = a^{\frac{k}{n}}$$

$$(\sqrt{a})^{2n} = a^n$$

$$\sqrt[n]{\sqrt[k]{a}} = \sqrt[n \cdot k]{a}$$

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

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

$$\sqrt[2n]{a^{2n}} = |a|$$

$$\sqrt[2n+1]{a^{2n+1}} = a$$

$$(\sqrt[n]{a})^n = a$$