

Scoaterea factorilor de sub radical

$$a, b \in \mathbb{R}, b \geq 0$$

$$\sqrt{a^2 b} = |a| \sqrt{b} = \begin{cases} a \sqrt{b}, & a \geq 0 \\ -a \sqrt{b}, & a < 0 \end{cases}$$

Exemple:

$$\sqrt{2^2 \cdot 5} = 2\sqrt{5}$$

$$\sqrt{(-3)^2 \cdot 7} = |-3| \sqrt{7} = 3\sqrt{7}$$

$$\sqrt{72} = \sqrt{2^3 \cdot 3^2} = \sqrt{2^2 \cdot 3^2 \cdot 2} = (2 \cdot 3) \sqrt{2} = 6\sqrt{2}.$$