

ODMOCNINY

OPAKOVÁNÍ - PRAVIDLA

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

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}} \quad b \neq 0$$

$$\sqrt{100} = 10$$

$$\sqrt{10\,000} = 100$$

$$\sqrt{1\,000\,000} = 1\,000$$

! poloviční počet nul !

$$\sqrt{-16} = \text{neexistuje !!!!!}$$

$$\sqrt{0,01} = 0,1$$

$$\sqrt{0,0001} = 0,01$$

$$\sqrt{0,000001} = 0,001$$

! poloviční počet desetinných míst !

$$\sqrt{4 \cdot 25 \cdot 36} = \sqrt{3\,600} = 60$$

$$\sqrt{4 \cdot 25 \cdot 36} = \sqrt{4} \cdot \sqrt{25} \cdot \sqrt{36} = 2 \cdot 5 \cdot 6 = 60$$



Nelze použít vzorec

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

$$\sqrt{9} + \sqrt{16} = 3 + 4 = 7$$

$$\sqrt{25 - 16} = \sqrt{9} = 3$$

!

$$\sqrt{9 + 16} = \sqrt{25} = 5$$

$$\sqrt{25} - \sqrt{16} = 5 - 4 = 1$$

$$\sqrt{1.44} = \sqrt{144 \cdot 0,01} = \sqrt{144} \cdot \sqrt{0,01} = 12 \cdot 0,1 = 1,2$$

$$\sqrt{1.96} = \sqrt{196 \cdot 0,01} = 14 \cdot 0,1 = 1,4$$

$$\sqrt{0.36} = \sqrt{36 \cdot 0,01} = 6 \cdot 0,1 = 0,6$$

$$\sqrt{2.56} = \sqrt{256 \cdot 0,01} = 16 \cdot 0,1 = 1,6$$

$$\sqrt{0.81} = \sqrt{81 \cdot 0,01} = 9 \cdot 0,1 = 0,9$$

$$\sqrt{29 + 92} - \sqrt{100} = \sqrt{121} - \sqrt{100} = 11 - 10 = 1$$

$$\sqrt{113 + 31} - \sqrt{9} = \sqrt{144} - \sqrt{9} = 12 - 3 = 9$$

$$\sqrt{1 + 15} - \sqrt{49} = \sqrt{16} - \sqrt{49} = 4 - 7 = -3$$

$$\sqrt{4 + 32} + \sqrt{16} = \sqrt{36} + \sqrt{16} = 6 + 4 = 10$$

$$\sqrt{181 - 132} - \sqrt{4} = \sqrt{49} - \sqrt{4} = 7 - 2 = 5$$

$$\frac{\sqrt{81 + 40}}{\sqrt{16}} = \frac{\sqrt{121}}{\sqrt{16}} = \frac{11}{4} = 2 \frac{3}{4}$$

$$\frac{\sqrt{20^2}}{\sqrt{81}} = \frac{20}{9} = 2 \frac{2}{9}$$

$$\sqrt{64} \cdot \sqrt{7^2} = 8 \cdot 7 = 56$$

$$\sqrt{2} \cdot \sqrt{3} \cdot \sqrt{6} = \sqrt{2 \cdot 3 \cdot 6} = \sqrt{36} = 6$$

$$\sqrt{16} \cdot \sqrt{121} \cdot \sqrt{0,04} = 4 \cdot 11 \cdot (\sqrt{4 \cdot 0,01}) = 4 \cdot 11 \cdot 0,2 = 8,8$$

$$\sqrt{8 \cdot 10 \cdot 5} = \sqrt{400} = 20$$

$$\sqrt{15^2} - \sqrt{5^2} + 10 = 15 - 5 + 10 = 20$$

$$-\frac{1}{3} \cdot \sqrt{36} + 2 = -\frac{1}{3} \cdot \frac{6}{1} + 2 = -\frac{6}{3} + 2 = -2 + 2 = 0$$

DÚ

Určete stranu čtverce, je-li jeho obsah:

$$S = a \cdot a$$

$$S = a^2$$

$$a = \sqrt{S}$$

$$81 \text{ m}^2$$

$$a = 9 \text{ m}$$

$$0,04 \text{ km}^2$$

$$a = 0,2 \text{ km}$$

$$64 \text{ mm}^2$$

$$a = 8 \text{ mm}$$

$$3,24 \text{ dm}^2$$

$$a = 1,8 \text{ dm}$$

$$\sqrt{324 \cdot 0,01} = 18 \cdot 0,1 = 1,8$$