

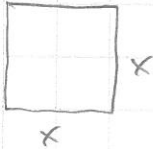
8.8 a) $x^2 = 25 \quad | \sqrt{\quad} \Rightarrow x = \pm \sqrt{25} = \pm 5$

b) $\underbrace{x^2}_{\geq 0 \text{ since}} = -9 \quad \downarrow \quad \underline{\text{ei ratz.}}$

c) $2x^2 = 8 \quad | :2 \Rightarrow x^2 = 4 \quad | \sqrt{\quad} \Rightarrow x = \pm \sqrt{4} = \pm 2$

d) $4x^2 - 36 = 0 \Rightarrow 4x^2 = 36 \quad | :4 \Rightarrow x^2 = 9 \quad | \sqrt{\quad} \Rightarrow x = \pm \sqrt{9} = \pm 3$

8.9



quadrat: $x^2 = 338\,424 \text{ km}^2 \quad | \sqrt{\quad}$

$\Rightarrow x = \pm \sqrt{338\,424 \text{ km}^2} \approx 581,742 \text{ km} \approx \underline{582 \text{ km}}$

8.16, 21, 24, 22

8.16 $A = \pi r^2 = 263 \text{ m}^2 \quad | : \pi \Rightarrow r^2 = \frac{263 \text{ m}^2}{\pi} \quad | \sqrt{\quad}$

$\Rightarrow r = \pm \sqrt{\frac{263 \text{ m}^2}{\pi}} \approx 9,14962 \text{ m}$

halbkreis: $d = 2r \approx 18,2992 \text{ m} \approx \underline{18,3 \text{ m}}$



8.21 $\frac{\sqrt{6}}{3} \cdot \frac{\sqrt{6}}{2} = \frac{\sqrt{6} \cdot \sqrt{6}}{3 \cdot 2} = \frac{6}{6} = 1 \Rightarrow \text{wäre}$

8.24 $\sqrt{a} = b \Rightarrow \begin{cases} 1^\circ b \geq 0 \\ 2^\circ b^2 = a \end{cases}$

a) Vorte $\sqrt{12} = 2\sqrt{3}$

Tod. $1^\circ \underbrace{2}_{\geq 0} \underbrace{\sqrt{3}}_{\geq 0} \geq 0 \quad \checkmark$

$2^\circ (2\sqrt{3})^2 = 2^2 \cdot (\sqrt{3})^2 = 4 \cdot 3 = 12 \quad \checkmark$

$1^\circ - 2^\circ \Rightarrow \text{wäre}$

m.o.t.
↑ ↑ ↑
mitte li todistellare

b) Vorte $\sqrt{\frac{2}{3}} = \frac{\sqrt{6}}{3}$

Tod. $1^\circ \underbrace{\sqrt{6}}_{\geq 0} \underbrace{\frac{1}{3}}_{\geq 0} \geq 0 \quad \checkmark$

$2^\circ \left(\frac{\sqrt{6}}{3}\right)^2 = \frac{(\sqrt{6})^2}{3^2} = \frac{6}{9} = \frac{2}{3} \quad \checkmark$

$1^\circ - 2^\circ \Rightarrow \text{wäre} \quad \text{m.o.t.}$