

1.80 a) da $\frac{3}{4} = \frac{18}{24} \rightarrow \underline{\underline{6}}$

b) $\underline{\underline{5}}$ c) $\underline{\underline{2}}$ d) $\underline{\underline{3}}$

1.81 a) $\sqrt{8} \cdot \sqrt{2} = \sqrt{16} = 4$

b) $\sqrt{3} \cdot \sqrt{27} = \sqrt{3 \cdot 3^3} = \sqrt{3^4} = 3^2 = 9$

c) $\sqrt[3]{4} \cdot \sqrt[3]{2} = \sqrt[3]{8} = 2$

d) $\sqrt[4]{32} \cdot \sqrt[4]{\frac{1}{2}} = \sqrt[4]{16} = 2$

e) $\sqrt[5]{9} \cdot \sqrt[5]{27} = \sqrt[5]{3^2 \cdot 3^3} = 3$

f) $\sqrt[6]{81} \cdot \sqrt[6]{9} = \sqrt[6]{3^4 \cdot 3^2} = 3$

1.85 a) $\sqrt{16} = \sqrt{4} = 2$

b) $\sqrt[3]{64} = \sqrt[3]{2^6} = \sqrt{2^2} = 2$

1.86 a) $(\sqrt{3})^4 = 3^2 = 9$

b) $(2\sqrt{2})^4 = (\sqrt{8})^4 = 8^2 = 64$

* Notiz zu "Partielles Wurzelziehen"

$$\sqrt{A^2 B} = A \sqrt{B} \quad \text{z.B.: } \sqrt{8} = \sqrt{4 \cdot 2} = 2\sqrt{2}$$

* Wurzel im Nenner? Benutze:

$$\frac{1}{\sqrt{A}} = \frac{1}{\sqrt{A}} \cdot \frac{\sqrt{A}}{\sqrt{A}} = \frac{1}{A} \cdot \sqrt{A}$$

Bsp. $\frac{3}{\sqrt{2}} = \frac{3}{2} \sqrt{2}$

