

S. 121 Nr. 12d

$$\begin{aligned} a \cdot b \cdot c \cdot \sqrt{\frac{a}{bc}} &= \sqrt{a^2} \cdot \sqrt{b^2} \cdot \sqrt{c^2} \cdot \frac{\sqrt{a}}{\sqrt{bc}} \\ &= \frac{\sqrt{a^2 b^2 c^2 a}}{\sqrt{bc}} = \sqrt{\frac{a^3 b^2 c^2}{bc}} = \sqrt{a^3 bc} \end{aligned}$$

S. 121 Nr. 11d

$$\begin{aligned} &\sqrt{3} \cdot \sqrt{4} \cdot \sqrt{c^2} \\ \sqrt{12c^2} &= \sqrt{3 \cdot 4 \cdot c^2} = \\ &= \sqrt{3} \cdot 2 \cdot c \\ &= 2c\sqrt{3} \end{aligned}$$

S. 121 Nr. 12c

$$\begin{aligned} \text{c) } u \cdot v \cdot \sqrt{\frac{u}{v}} &= \sqrt{u^2} \cdot \sqrt{v^2} \cdot \sqrt{\frac{u}{v}} \\ &= \sqrt{u^2 \cdot v^2} \cdot \frac{\sqrt{u}}{\sqrt{v}} \\ &= \frac{\sqrt{u^2 \cdot v^2 \cdot u}}{\sqrt{v}} \\ &= \sqrt{\frac{u^3 v^2}{v}} = \sqrt{\frac{u^3}{v}} \end{aligned}$$