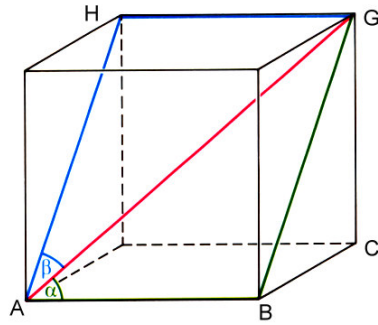


Lösung zu S.52/28:



a) Länge der Flächendiagonalen (rechw. Dreieck GBC): $f^2 = a^2 + a^2 \Rightarrow f = a \cdot \sqrt{2}$

Länge der Raumdiagonalen

(rechw. Dreieck ABG): $r^2 = f^2 + a^2 = 2a^2 + a^2 = 3a^2 \Rightarrow r = a \cdot \sqrt{3}$ (nicht unbed. nötig)

$$\tan \alpha = \frac{f}{a} = \frac{a\sqrt{2}}{a} = \sqrt{2} \approx 1,414213562 \Rightarrow \alpha \approx 54,7^\circ$$

$$\text{b) } \tan \beta = \frac{a}{f} = \frac{a}{a\sqrt{2}} = \frac{1}{\sqrt{2}} \Rightarrow \beta \approx 35,3^\circ$$