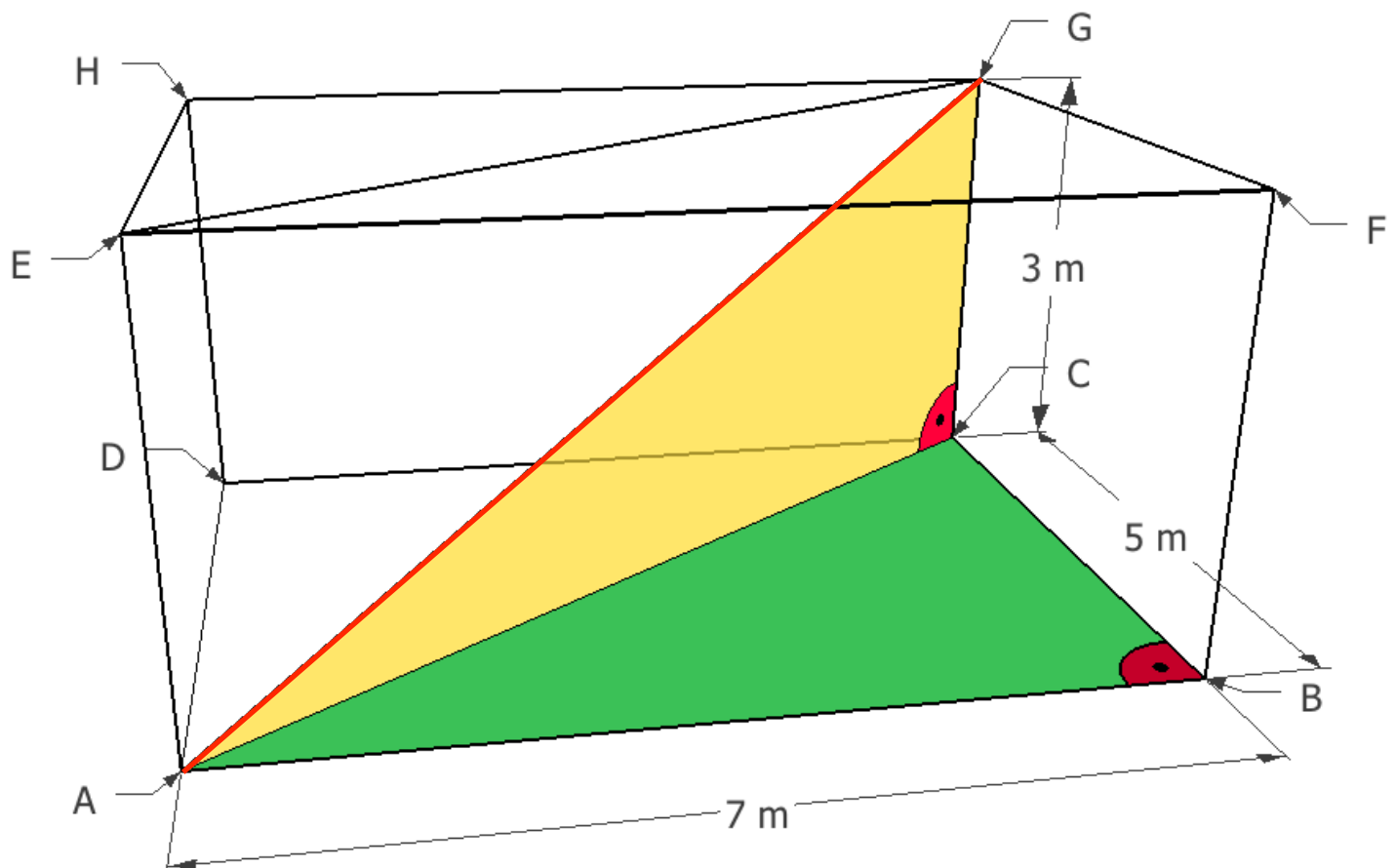


Lösung AB Körperdiagonale im Quader



$$\begin{aligned} 1. \quad \overline{AC}^2 &= \overline{AB}^2 + \overline{BC}^2 \\ \overline{AC} &= \sqrt{\overline{AB}^2 + \overline{BC}^2} \\ &= \sqrt{7^2 + 5^2} \\ &= \sqrt{49 + 25} \\ &= \underline{\underline{\sqrt{74}}} \end{aligned}$$

$$\begin{aligned} 2. \quad \overline{AG}^2 &= \overline{AC}^2 + \overline{CG}^2 \\ \overline{AG} &= \sqrt{\overline{AC}^2 + \overline{CG}^2} \\ &= \sqrt{\sqrt{74}^2 + 3^2} \\ &= \sqrt{74 + 9} \\ &= \underline{\underline{\sqrt{83}}} \end{aligned}$$