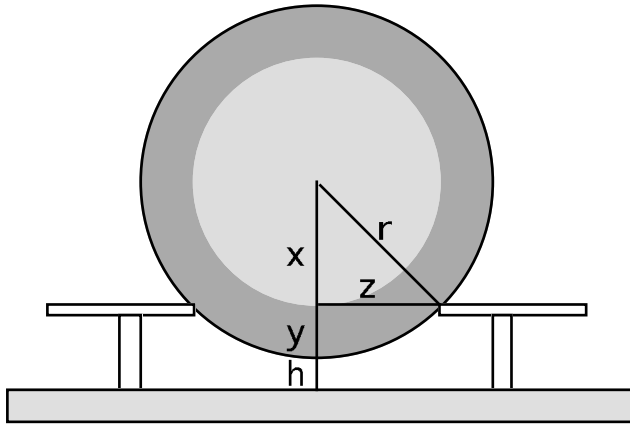


# Lösungen zu den Aufgaben zum Pythagoras

1.



$$\begin{aligned}x^2 + z^2 &= r^2 & \Rightarrow & x \approx 8,94 \text{ cm} \\y = r - x &\approx 3,06 \text{ cm} & h = 5 \text{ cm} - y &\approx 1,94 \text{ cm}\end{aligned}$$

$$\begin{aligned}2. \quad \overline{BG}^2 &= \overline{BC}^2 + \overline{CG}^2 = \overline{AD}^2 + \overline{AE}^2 = 41 \text{ cm}^2 & \overline{BM}^2 &= \left(\frac{1}{2} \cdot \overline{BG}\right)^2 = \frac{41}{4} \text{ cm}^2 \\ \overline{AM}^2 &= \overline{AB}^2 + \overline{BM}^2 = 59\frac{1}{4} \text{ cm}^2 & \Rightarrow \overline{AM} &\approx 7,7 \text{ cm}\end{aligned}$$