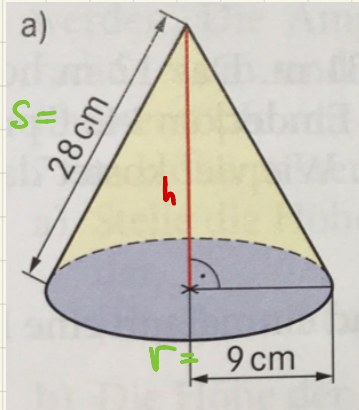


a)



• Mantel:

$$M = r \cdot \pi \cdot s$$

$$= 9 \text{ cm} \cdot \pi \cdot 28 \text{ cm} = \underline{\underline{791,68 \text{ cm}^2}}$$

• Mittelpunktswinkel:

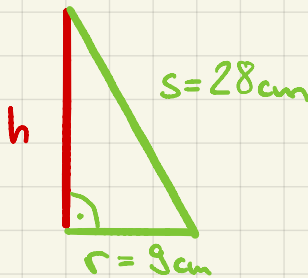
$$\varphi = \frac{r}{s} \cdot 360^\circ = \frac{9 \text{ cm}}{28 \text{ cm}} \cdot 360^\circ = \underline{\underline{115,71^\circ}}$$

• Oberfläche:

$$O = \underbrace{A_G}_{r^2 \pi} + M = 9^2 \pi \text{ cm}^2 + 791,68 \text{ cm}^2 = \underline{\underline{1046,15 \text{ cm}^2}}$$

(= 10,46 dm²)

• Volumen:



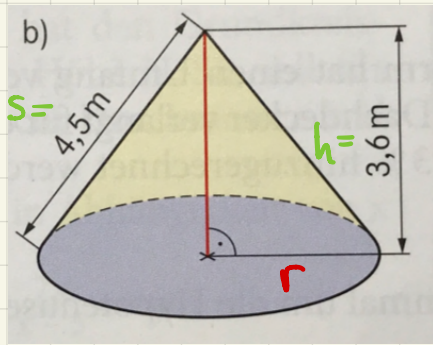
$$h = \sqrt{28^2 - 9^2} \text{ cm} = 26,51 \text{ cm}$$

$$V = \frac{1}{3} \cdot A_G \cdot h$$

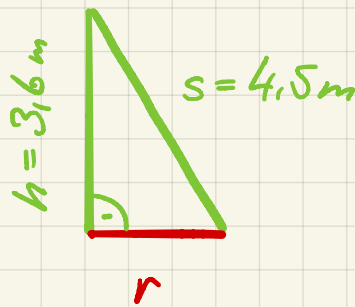
$$= \frac{1}{3} \cdot 9^2 \cdot \pi \cdot 26,51 \text{ cm}^3 = \underline{\underline{2248,66 \text{ cm}^3}}$$

(2,25 dm³)

b)



• Mantel:



$$\begin{aligned} r &= \sqrt{s^2 - h^2} \\ &= \sqrt{4,5^2 - 3,6^2} \text{ m} \\ &= 2,7 \text{ m} \end{aligned}$$

$$M = r \cdot \pi \cdot s = 2,7 \text{ m} \cdot \pi \cdot 4,5 \text{ m} = \underline{\underline{38,17 \text{ m}^2}}$$

• Mittelpunktswinkel:

$$\varphi = \frac{r}{s} \cdot 360^\circ = \frac{2,7 \text{ m}}{4,5 \text{ m}} \cdot 360^\circ = \underline{\underline{216^\circ}}$$

• Oberfläche:

$$O = A_G + M = 2,7^2 \pi \text{ m}^2 + 38,17 \text{ m}^2 = \underline{\underline{61,07 \text{ m}^2}}$$

• Volumen:

$$V = \frac{1}{3} \cdot A_G \cdot h = \frac{1}{3} \cdot 2,7^2 \pi \cdot 3,6 \text{ m}^3 = \underline{\underline{27,48 \text{ m}^3}}$$