

S. 159 P 70

$$V_z = 1000 \text{ cm}^3 = V_k \quad G_z = G_k$$
$$h_z = 12 \text{ cm} \quad O_k \quad O_z$$

$$O_z = 2 \cdot \pi \cdot r^2 + 2\pi \cdot r \cdot h$$
$$= 2 \cdot \pi \cdot 5,15^2 + 2 \cdot \pi \cdot 5,15 \cdot 12$$

$$O_z = 554,95 \text{ cm}^2 \quad (\checkmark)$$

Zylinder s

$$G_z = \frac{V_z}{h_z} = \frac{1000}{12} = 83,33$$

$$G_z = \pi \cdot r^2$$
$$r = \sqrt{\frac{G_z}{\pi}} = \underline{5,15}$$

$$V_k = \frac{1}{3} \cdot G \cdot h_k$$

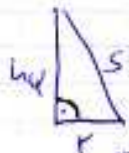
$$1000 = \frac{1}{3} \cdot 83,33 \cdot h_k$$

$$h_k = \frac{3000}{83,33} = 36 \text{ cm}$$

$$O_k = \pi \cdot r^2 + \pi \cdot r \cdot s$$

$$= \pi \cdot 5,15^2 + \pi \cdot 5,15 \cdot 36,37$$

$$O_k = 671,76 \text{ cm}^2$$



$$s = \sqrt{5,15^2 + 36^2} = 36,37 \quad (\checkmark)$$