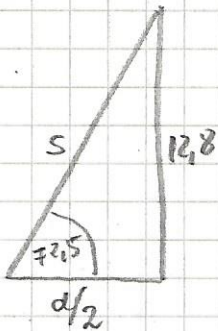
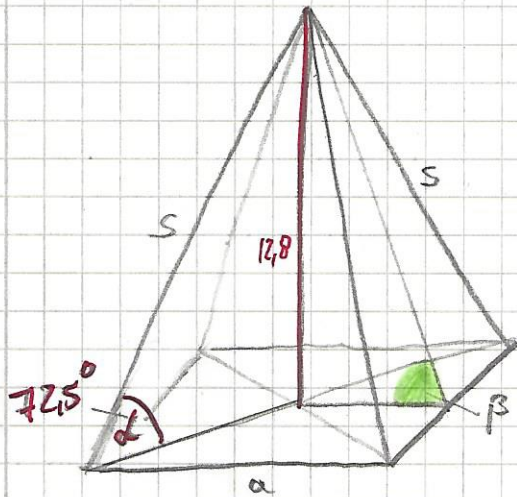


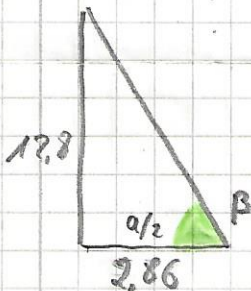
S. 37 Nr. 13



$$\frac{d}{2} : \tan 72,5 = \frac{12,8}{d/2} \Rightarrow d/2 = 4,03 \dots$$

$$d = 8,07$$

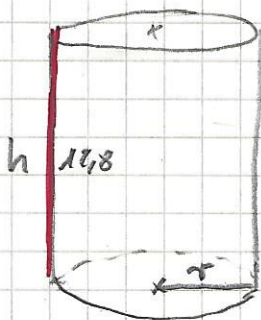
$$d = a\sqrt{2} \Rightarrow \frac{8,07 \dots}{\sqrt{2}} = a \rightarrow a = 5,71 \text{ cm}$$



$$\beta : \tan \beta = \frac{12,8}{2,86} \rightarrow \beta = 44,4^\circ$$

$$V_{\text{Pyr}} = \frac{1}{3} a^2 \cdot h$$
$$= \frac{1}{3} \cdot 5,71^2 \cdot 12,8$$

$$V_{\text{Pyr}} = 139,11 \text{ cm}^3$$



$$V_{\text{Zyl}} = 139,11 \text{ cm}^3$$

$$V_{\text{Zyl}} = \pi \cdot r^2 \cdot h$$

$$M_{\text{Zyl}} = 2\pi r \cdot h$$

Berechnung r:

$$139,11 = \pi \cdot r^2 \cdot 12,8$$

$$r^2 = 3,45 \dots$$

$$r = 1,86 \text{ cm}$$

$$M = 2 \cdot \pi \cdot 1,86 \cdot 12,8$$

$$M = 159,59 \text{ cm}^2$$