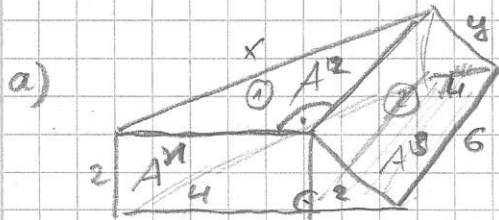


S. 43 Str. 4 links

$$V_P = G \cdot h$$



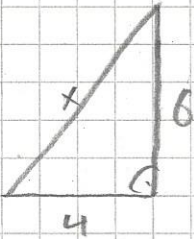
$$V_{ges} = V_1 + V_2$$

$$V_1 = \frac{1}{2} \cdot 6 \cdot 4 \cdot 2$$

$$V_2 = \frac{1}{2} \cdot 2 \cdot 2 \cdot 6$$

$$V_{ges} = 36 \text{ cm}^3$$

$$O_{ges} = 2 \cdot G_{\Delta 1} + A^1 + A^2 + 2 \cdot G_{\Delta 2} + A_3 + A_4$$



$$x = \sqrt{6^2 + 4^2} \Rightarrow x = 7,21$$

$$G_{\Delta 1} = \frac{1}{2} \cdot 6 \cdot 4 = 12$$

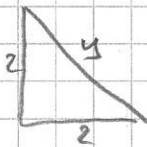
$$A^1 = 2 \cdot 4 = 8$$

$$A^2 = 7,21 \cdot 2 = 14,42$$

$$G_{\Delta 2} = \frac{1}{2} \cdot 2 \cdot 2 = 2$$

$$A_3 = 6 \cdot 2 = 12$$

$$A_4 = 2,83 \cdot 6 = 16,98$$

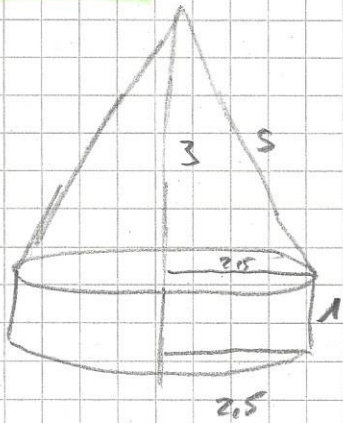


$$y = 2\sqrt{2}$$

$$y = 2,83$$

$$O_{ges} = 79,4 \text{ cm}^2$$

b)



$$V_g = V_z + V_{Keg}$$

$$V_z = \pi \cdot 2,5^2 \cdot 1$$

$$V_{Ke} = \frac{1}{3} \cdot \pi \cdot 2,5^2 \cdot 3$$

$$V_{ges} = 39,27 \text{ cm}^3$$

$$O_{ges} = G + M_z + M_K$$

$$G = \pi \cdot 2,5^2$$

$$M_z = 2\pi \cdot 2,5 \cdot 1$$

$$M_K = \pi \cdot r \cdot s$$

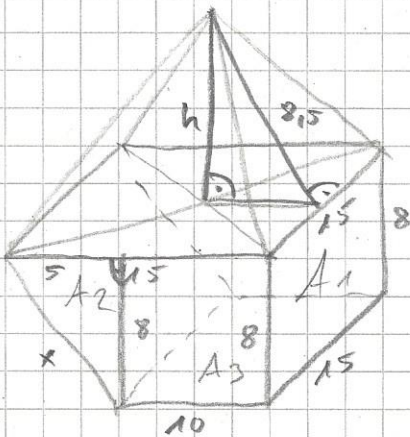
$$\pi \cdot 2,5 \cdot 3,91$$

$$s = \sqrt{2,5^2 + 3^2}$$

$$s = 3,91$$

$$O_{ges} = 66,05 \text{ cm}^2$$

c)



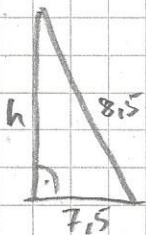
$$V_{ges} = V_{Pyr} + V_{Prisma}$$

$$V_{PR} = \frac{15+10}{2} \cdot 8 \cdot 15 = 1500$$

$$V_{Pyr} = \frac{1}{3} \cdot 15^2 \cdot h \Rightarrow 300$$

$$\frac{1}{3} \cdot 15^2 \cdot 4$$

$$V_{ges} = 1800 \text{ cm}^3$$



$$h = \sqrt{8,5^2 - 7,5^2}$$

$$h = 4 \text{ cm}$$

$$x = \sqrt{5^2 + 8^2}$$

$$x = 9,43 \text{ cm}$$

$$O_{ges} = M_{Pyr} + 2 \cdot A_T + A_1 + A_2 + A_3$$

$$M_{Pyr} = 2 \cdot 15 \cdot 8,5 = 255$$

$$A_T = \frac{15+10}{2} \cdot 8 = 100$$

$$A_1 = 15 \cdot 8 = 120$$

$$A_2 = 9,43 \cdot 15 = 141,45$$

$$A_3 = 10 \cdot 15 = 150$$

$$\Rightarrow O_{ges} = 866,45 \text{ cm}^2$$