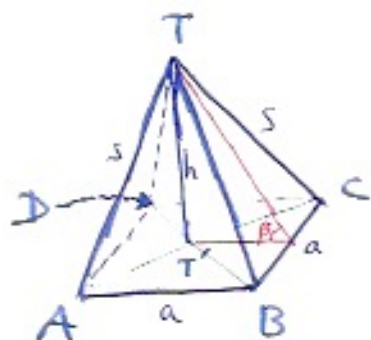


(5.51)



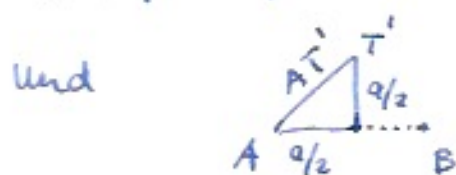
$$\angle T'AT = \alpha$$

$$\angle TBC = \gamma$$

β siehe Figur

a) $a = 6,8$ $h = 9,5$

$$h^2 + |AT'|^2 = s^2$$



$$\left(\frac{a}{2}\right)^2 + \left(\frac{h}{2}\right)^2 = |AT'|^2$$

$$2 \cdot (3,4)^2 = |AT'|^2$$

$$\Rightarrow |AT'| = 4,8 \quad \text{und} \quad s = \sqrt{|AT'|^2 + h^2} = 10,6$$

$$\bullet \cos \alpha = \frac{|AT'|}{s} \quad \sin \alpha = \frac{h}{s} \quad \tan \alpha = \frac{h}{|AT'|}$$

auf jeden Fall $\alpha = 63,7^\circ$

$$\bullet \tan \beta = \frac{h}{a/2} = 2,79 \quad \Rightarrow \beta = 70,3^\circ$$

$$\bullet \cos \gamma = \frac{a/2}{s} = 0,32 \quad \Rightarrow \gamma = 71,3^\circ$$

$$\text{Volumen} = \frac{1}{3} \cdot a^2 \cdot h = 14,6$$

Seitenfläche



$$h_a = s \cdot \sin \gamma = 10,0$$

$$A = \frac{1}{2} \cdot a \cdot h_a = 34,0$$

$$\text{Totalfläche} = (6,8)^2 + 4 \cdot 34,0 \approx 182$$