	Navn:		Skole:	
	Klasse: 20		Dato: 17. april 2021	Fag: Matematik A

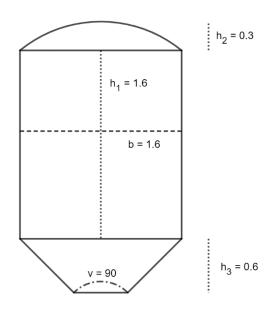
Opgave 175

$$h_1 = 1.6$$

 $h_2 = 0.3$
 $h_3 = 0.6$
 $b = 1.6$
 $v = 90^{\circ}$

Find areal af cylinder

$$\begin{split} A_{cyl} &= 2 \cdot \pi \cdot \frac{b}{2} \cdot h_1 \\ &= 2 \cdot \pi \cdot \frac{1.6}{2} \cdot 1.6 \quad | \textit{Indsæt tal} \\ &= 2 \cdot \pi \cdot 0.8 \cdot 1.6 \quad | \textit{Udregn brøk} \\ &= 8.04 \quad | \textit{Gange hele lortet sammen} \end{split}$$



Find arealet af kuglekalotten

$$A_{kalot} = \pi \cdot \left(\left(\frac{b}{2} \right)^2 + h_2^2 \right)$$

$$= \pi \cdot \left(\left(\frac{1.6}{2} \right)^2 + 0.3^2 \right) \qquad | Indsæt tal$$

$$= \pi \cdot (0.8^2 + 0.3^2) \qquad | Udregn brøk$$

$$= \pi \cdot (0.64 + 0.09) \qquad | Udregn potens$$

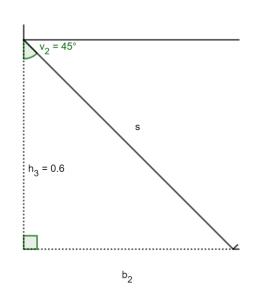
$$= \pi \cdot 0.73 \qquad | Plus$$

$$= 2.3 \qquad | Gange$$

Find arealet af keglestubben

$$\begin{aligned} b_2 &= h_3 = 0.6 \\ s &= \sqrt{h_3^2 \cdot 2} \\ &= \sqrt{0.6^2 \cdot 2} \quad | \text{Inds$$\%t tal} \\ &= \sqrt{0.36 \cdot 2} \quad | \text{Potens} \\ &= \sqrt{0.72} \quad | \text{Gange} \\ &= 0.85 \quad | \text{Kvrod} \\ \end{aligned}$$

$$r &= b - b_2 \cdot 2 \\ &= 1.6 - 0.6 \cdot 2 \quad | \text{Inds$\%$t$ tal} \\ &= 0.4 \quad | \text{Udregn} \end{aligned}$$



Navn:		Skole:	
Klasse: 20		Dato: 17. april 2021	Fag: Matematik A

$$\begin{split} A_{keglestub} &= \pi \cdot s \cdot \left(\frac{b+r}{2}\right) \\ &= \pi \cdot 0.85 \cdot \left(\frac{1.6+0.4}{2}\right) \quad | \; Indsæt\; tal \\ &= \pi \cdot 0.85 \cdot \left(\frac{2}{2}\right) \qquad | \; Udregn\; tæller \\ &= \pi \cdot 0.85 \cdot 1 \qquad | \; Udreng\; bræk \\ &= 2.67 \qquad | \; Gange\; sammen \end{split}$$

Udregn det totale areal

$$\begin{split} A_{total} &= A_{kalot} + A_{cyl} + A_{keglestub} \\ &= 2.3 + 8.04 + 2.67 & | Indsæt\ tal \\ &= 13.37 & | Plus\ lortet\ sammen \end{split}$$