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Opgave 175

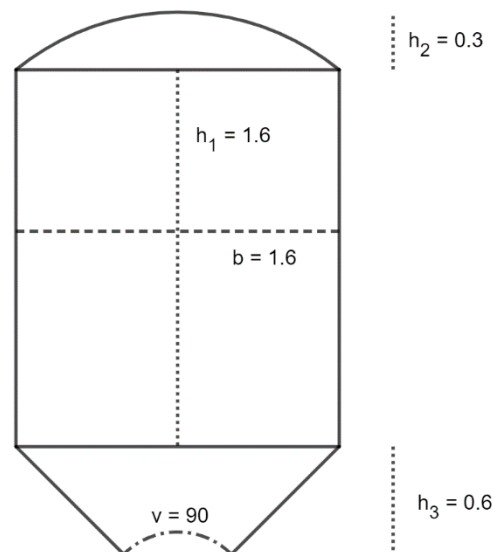
$$h_1 = 1.6$$

$$h_2 = 0.3$$

$$h_3 = 0.6$$

$$b = 1.6$$

$$v = 90^\circ$$



Find areal af cylinder

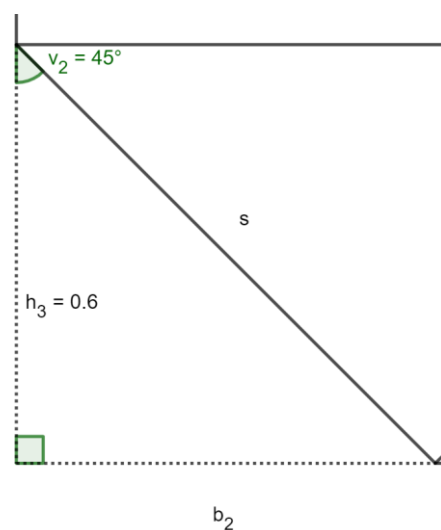
$$\begin{aligned}
 A_{cyl} &= 2 \cdot \pi \cdot \frac{b}{2} \cdot h_1 \\
 &= 2 \cdot \pi \cdot \frac{1.6}{2} \cdot 1.6 && | \text{Indsæt tal} \\
 &= 2 \cdot \pi \cdot 0.8 \cdot 1.6 && | \text{Udregn brøk} \\
 &= 8.04 && | \text{Gange hele lortet sammen}
 \end{aligned}$$

Find arealet af kuglekalotten

$$\begin{aligned}
 A_{kalot} &= \pi \cdot \left(\left(\frac{b}{2} \right)^2 + h_2^2 \right) \\
 &= \pi \cdot \left(\left(\frac{1.6}{2} \right)^2 + 0.3^2 \right) && | \text{Indsæt tal} \\
 &= \pi \cdot (0.8^2 + 0.3^2) && | \text{Udregn brøk} \\
 &= \pi \cdot (0.64 + 0.09) && | \text{Udregn potens} \\
 &= \pi \cdot 0.73 && | \text{Plus} \\
 &= 2.3 && | \text{Gange}
 \end{aligned}$$

Find arealet af keglestubben

$$\begin{aligned}
 b_2 &= h_3 = 0.6 \\
 s &= \sqrt{h_3^2 \cdot 2} \\
 &= \sqrt{0.6^2 \cdot 2} && | \text{Indsæt tal} \\
 &= \sqrt{0.36 \cdot 2} && | \text{Potens} \\
 &= \sqrt{0.72} && | \text{Gange} \\
 &= 0.85 && | \text{Kvrod} \\
 r &= b - b_2 \cdot 2 \\
 &= 1.6 - 0.6 \cdot 2 && | \text{Indsæt tal} \\
 &= 0.4 && | \text{Udregn}
 \end{aligned}$$



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

Udregn det totale areal

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