

Partie 2

2b)  $r = 25 \text{ cm}$   $h = 43,30 \text{ cm}$

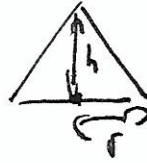
De  $V = \pi r^2 h = \pi \times (25)^2 \times (43,30) \approx 85019 \text{ cm}^3$

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Partie 3

3)a)  $S_T = S_{\text{cône}} + S_{\text{cylindre}} + S_{\text{demi-sphère}}$

$S_{\text{cône}} = \pi r (\sqrt{r^2 + h^2})$   
 $= \pi \times 250 \times (\sqrt{250^2 + 250^2})$   
 $= 277680,18 \text{ mm}^2$



$S_{\text{cylindre}} = h \times 2\pi \times r = 2\pi \times 250 \times 1016 = 1595929 \text{ mm}^2$

$S_{\text{sphère}} = 4\pi r^2 \times \frac{1}{2} = 2\pi r^2 = 2\pi \times 250^2 = 392699,01$

De  $S_T = 277680,18 + 1595929 + 392699,08$   
 $= 2266308 \text{ mm}^2 = 2,266308 \text{ m}^2$

Poids = ~~2266308~~  $2,266308 \times 8 \times 5 \approx \underline{\underline{90,64 \text{ kg}}}$

3)b)  $\text{Volume} = \frac{4}{3} \pi r^3 \times \frac{1}{2} + \pi r^2 \times \frac{3}{4} \times h$

$= \frac{4}{3} \pi \times (0,25)^3 \times \frac{1}{2} + \pi \times (0,25)^2 \times 0,75 \times 1,016$

$= 0,03272 + 0,14696$

$= 0,1823 \text{ m}^3$

$d = 0,907$  , donc  $\text{Poids liquide} = 0,9 \times 0,1823 \text{ t}$   
 $= 0,16 \text{ t}$   
 $= 160 \text{ kg}$

$$\begin{aligned} \text{Poids TOTAL} &= 160 + 90,6 \\ &= \underline{\underline{250,6 \text{ Kg}}} \end{aligned}$$