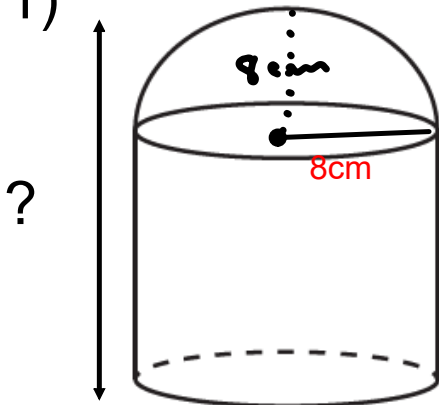


Working backwards: Composite solids

Now we get to have some fun!

1)



AREA OF COMBO SOLID
= 1306.90 CM²

$$\begin{aligned} \textcircled{1} A_{\text{hemisphere}} &= 2\pi r^2 \\ &= 2\pi(8)^2 \\ &= 402.12 \text{ cm}^2 \end{aligned}$$

$$\textcircled{2} \text{ Area cylinder} = 1306.90 - 402.12 \\ = 904.78 \text{ cm}^2$$

$\textcircled{3}$ Find height of cylinder

$$904.78 = 2\pi r h + \pi r^2$$

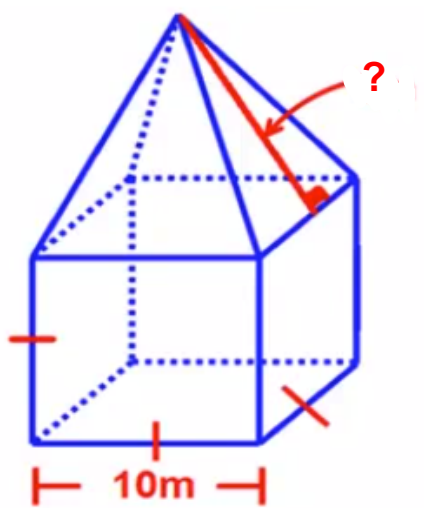
$$904.78 = 2\pi(8)h + \pi(8)^2$$

$$904.78 = 50.27h + 201.06$$

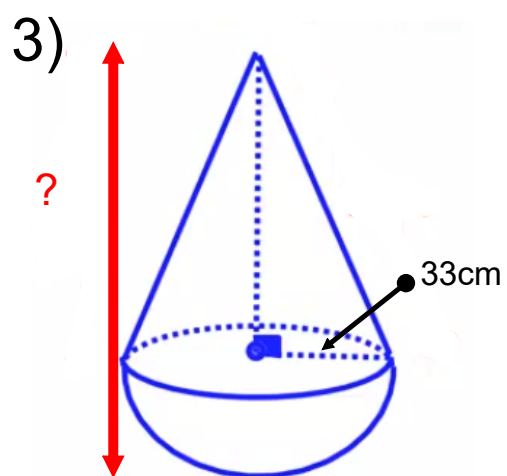
$$\begin{array}{r} 703.72 = 50.27h \\ \hline 50.27 \quad 50.27 \end{array}$$

$$h = 14 \text{ cm}$$

2)

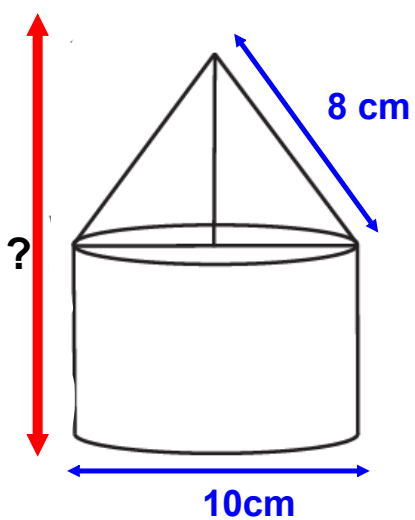


Area of this combination solid
= 741.6 m²



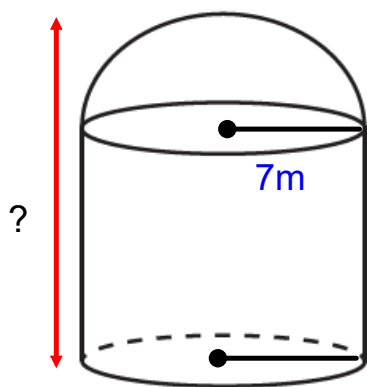
AREA OF COMBO SOLID
= 13052.3662 cm²

4)



SA of this solid = 424.115 cm^2

5)



$$TA = 989.6018 \text{ m}^2$$

