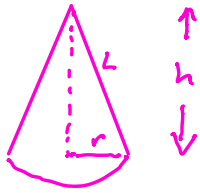


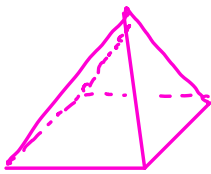
Volume of Cone



$$V = \frac{1}{3} \pi r^2 h$$

$$\begin{aligned} \text{Curved surface area} \\ = \pi r L \end{aligned}$$

Volume of Pyramid



$$V = \frac{1}{3} \times \text{area of base} \times \text{height}$$

Examples

1)



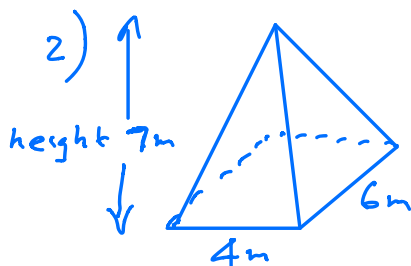
$$\begin{aligned} r &= 5\text{m} \\ h &= 12\text{m} \\ L &= 13\text{m} \end{aligned}$$

$$\begin{aligned} \text{Vol} &= \frac{1}{3} \pi r^2 h \\ &= \frac{1}{3} \times \pi \times 5^2 \times 12 \\ &= 314 \text{ m}^3 \end{aligned}$$

Curved Surface Area

$$= \pi r L = \pi \times 5 \times 13 = 204 \text{ m}^2$$

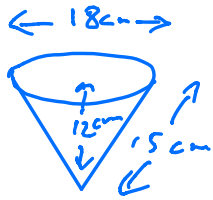
2)



$$\begin{aligned} \text{Volume of Pyramid} \\ &= \frac{1}{3} \times \text{area of base} \times \text{height} \\ &= \frac{1}{3} \times (6 \times 4) \times 7 = 56 \text{ m}^3 \end{aligned}$$

Exercise Page 75 Q6 a, b, c

Exercise 4G 1c

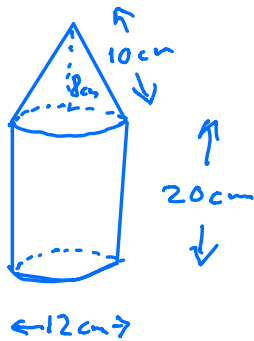


$$\begin{aligned}r &= 9 \text{ cm} \\h &= 12 \text{ cm} \\L &= 15 \text{ cm}\end{aligned}$$

$$\begin{aligned}\text{Vol} &= \frac{1}{3} \pi r^2 h \\&= \frac{1}{3} \times \pi \times 9^2 \times 12 \\&= 1018 \text{ cm}^3\end{aligned}$$

$$\begin{aligned}\text{Total surface area} &= \text{curved surface area} + \text{base} \\&= \pi r L + \pi r^2 \\&= \pi \times 9 \times 15 + \pi \times 9^2 \\&= 679 \text{ cm}^2\end{aligned}$$

Volume of Compound Shape



$$\begin{aligned}\text{Vol} &= \text{Vol of cylinder} + \text{Vol of cone} \\&= \pi r^2 h_1 + \frac{1}{3} \pi r^2 h_2 \\&= \pi \times 6^2 \times 20 + \frac{1}{3} \pi \times 6^2 \times 8 \\&= 816\pi \text{ cm}^3\end{aligned}$$