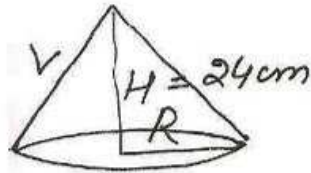
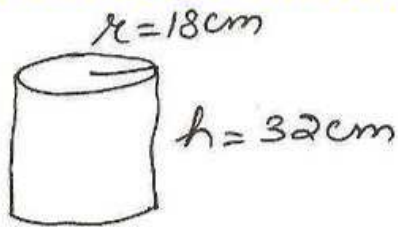


13



volume of conical heap = vol. of cyl. bucket

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

$$\frac{1}{3} R^2 \times 24 = 18 \times 18 \times 32$$

$$\begin{aligned} \Rightarrow R &= \sqrt{18 \times 18 \times 2 \times 2} \\ &= 18 \times 2 \\ &= 36 \text{ cm} \end{aligned}$$

$$\begin{aligned} L &= \sqrt{R^2 + H^2} \\ &= \sqrt{36^2 + 24^2} \\ &= \sqrt{12^2 (3^2 + 2^2)} \\ &= 12 \sqrt{13} \text{ cm} \\ &= 12 \times 3.61 \\ &= 43.32 \text{ cm} \end{aligned}$$