

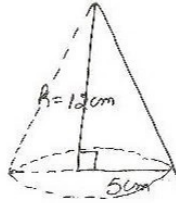
Ex 13.7

④



$\text{volume of cone} = 48\pi \text{ cm}^3$
 $\frac{1}{3}\pi r^2 h = 48\pi$
 $\Rightarrow \frac{1}{3} \times \pi \times r^2 \times 9 = 48\pi$
 $\Rightarrow r = \sqrt{16}$
 $= 4 \text{ cm}$
 $\therefore \text{diameter} = 2r$
 $= 8 \text{ cm}$

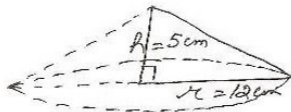
⑦



$\text{volume of cone} = \frac{1}{3}\pi r^2 h$
 $= \frac{1}{3} \times \frac{22}{7} \times 5 \times 5 \times 12$
 $= \frac{2200}{1}$
 $= 2200$
 $= 314.28 \text{ cm}^3$

NCERT Solutions by Dev Anoop (Bathinda)

⑧



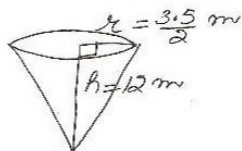
$\text{vol. of cone} = \frac{1}{3}\pi r^2 h$
 $= \frac{1}{3} \times \frac{22}{7} \times 12 \times 12 \times 5$
 $= \frac{5280}{1}$
 $= 5280$
 $= 754.28 \text{ cm}^3$

reqd ratio of volumes

$= \frac{2200}{7} \div \frac{5280}{7}$
 $= \frac{2200}{7} \times \frac{7}{5280}$
 $= \frac{2200}{5280}$

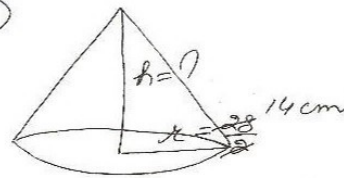
$= \frac{5}{12}$
 $= 5:12$

⑤



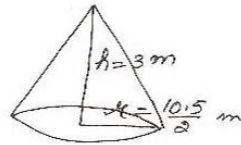
$\text{Capacity} = \frac{1}{3}\pi r^2 h$
 $= \frac{1}{3} \times \frac{22}{7} \times 3.5 \times 3.5 \times 12$
 $= 38.5 \text{ m}^3$
 $= 38.5 \text{ kl}$

⑥



$\text{Volume} = 9856 \text{ cm}^3$
 $\frac{1}{3}\pi r^2 h = 9856$
 $\frac{1}{3} \times \frac{22}{7} \times 14 \times 14 \times h = 9856$
 $\Rightarrow h = \frac{1232 \times 3}{4 \times 7}$
 $= 48 \text{ cm}$
 $l = \sqrt{r^2 + h^2}$
 $= \sqrt{14^2 + 48^2}$
 $= \sqrt{2^2(7^2 + 24^2)}$
 $= 2\sqrt{49 + 576}$
 $= 2\sqrt{625}$
 $= 2 \times 25$
 $= 50 \text{ cm}$

⑨



$l = \sqrt{h^2 + r^2}$
 $= \sqrt{3^2 + \left(\frac{10.5}{2}\right)^2}$
 $= \sqrt{9 + \frac{110.25}{4}}$
 $= \sqrt{\frac{36 + 110.25}{4}}$
 $= \frac{\sqrt{146.25}}{2}$
 $= \frac{12.093 \text{ m}}{2}$
 $\text{Vol} = \frac{1}{3}\pi r^2 h$

$= \frac{1}{3} \times \frac{22}{7} \times \frac{10.5}{2} \times \frac{10.5}{2} \times 3$
 $= \frac{173.25}{2}$
 $= 86.625 \text{ m}^3$
 $\text{area of canvas reqd} = \pi r l$
 $= \frac{22}{7} \times \frac{10.5}{2} \times \frac{12.093}{2}$
 $= 99.76 \text{ m}^2$