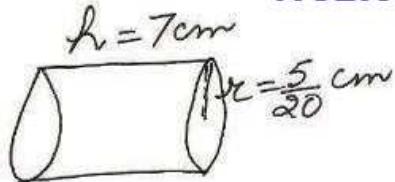


## NCERT Exemplar Solutions by (Dev Anoop)

(4)



volume of ink in fountain pen =  $\pi r^2 h$

$$\begin{aligned} &= \frac{22}{7} \times \frac{5}{20} \times \frac{5}{20} \times 7 \\ &= \frac{275}{2 \times 100} \\ &= 1.375 \text{ cm}^3 \\ &= \frac{1.375}{1000} \text{ l} \end{aligned}$$

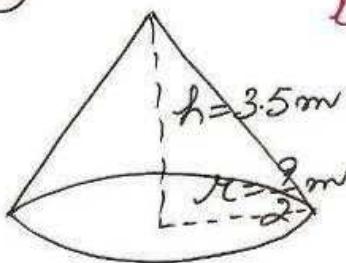
words ink  $\frac{1.375}{1000}$  l can write = 3300

words  $\frac{1}{5}$  l ink can write

$$\begin{aligned} &= \frac{3300}{1.375} \times \frac{1}{5} \\ &= \frac{660}{1000} \times \frac{1}{5} \\ &= \frac{3300 \times 1000}{1.375} \times \frac{1}{5} \\ &= \frac{6}{66 \times 1000000} \frac{400000}{275} \frac{80000}{554} \end{aligned}$$

$$= 480000$$

(5)



$$\begin{aligned} l &= \sqrt{3.5^2 + 4.5^2} \\ &= \sqrt{12.25 + 20.25} \\ &= \sqrt{32.5} \text{ m} \\ &= 5.7 \text{ m} \end{aligned}$$

volume of rice in heap =  $\frac{1}{3} \pi r^2 h$

$$\begin{aligned} &= \frac{1}{3} \times \frac{22}{7} \times \frac{9}{2} \times \frac{9}{2} \times 3.5 \\ &= \frac{297}{4} \\ &= 74.25 \text{ m}^3 \end{aligned}$$

area of cloth required to cover the heap

$$\begin{aligned} &= \pi r l \\ &= \frac{22}{7} \times \frac{9}{2} \times 5.7 \\ &= \frac{564.3}{7} \\ &= 80.61 \text{ m}^2 \end{aligned}$$

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