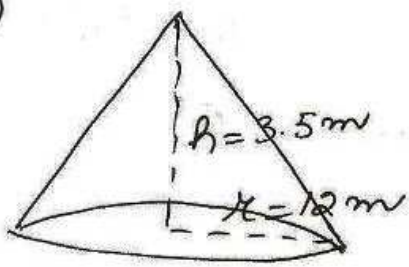
④



area of canvas used

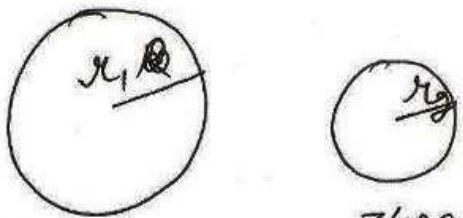
$= \pi r l$

$= \frac{22}{7} \times 12 \times 12.5$

$= \frac{3300}{7}$

$= 471.43 \text{ m}^2$

⑤



$\frac{M_1}{M_2} = \frac{5920}{740} = \frac{296}{37}$

$\frac{V_1 \times d}{V_2 \times d} = \frac{296}{37}$

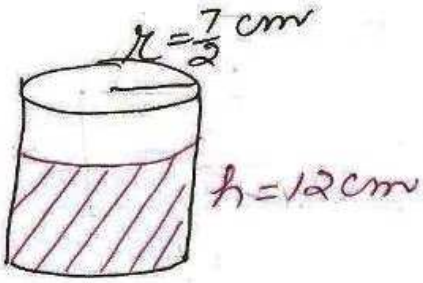
$\frac{\frac{4}{3}\pi r_1^3}{\frac{4}{3}\pi r_2^3} = \frac{296}{37}$

$r_1^3 = \frac{296}{37} \times \frac{5}{2} \times \frac{5}{2} \times \frac{5}{2}$

$r_1 = \sqrt[3]{5^3}$

radius $= 5$ cm

⑥



× 1600

Milk reqd. for 1600 students $= 1600 \times \pi r^2 h$

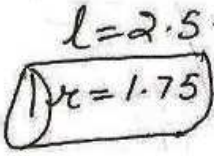
$= 1600 \times \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 12$

$= 739200 \text{ cm}^3$

$= \frac{739200}{1000} \text{ l}$

$= 739.2 \text{ l}$

⑦



area covered $= 5500 \text{ m}^2$

area covered in 1 revolution = CSA

$= 2\pi rh$

$= 2 \times \frac{22}{7} \times 1.75 \times 2.5$

$= 27.5 \text{ m}^2$

no. of revolutions

$= \frac{\text{area covered}}{\text{CSA}}$

$= \frac{5500}{27.5}$

$= 200$