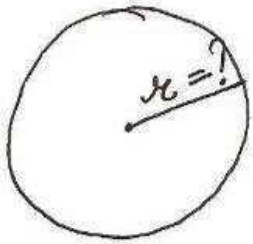
(1)



area of ⊙ = 22176 m^2

$\pi r^2 = 22176$

$\frac{22}{7} \times r^2 = 22176$

$r^2 = \frac{1008}{22176} \times \frac{7}{22}$

$\Rightarrow r = \sqrt{7 \times 7 \times 12 \times 12}$

$= 7 \times 12$

$= 84$ cm

rate = ₹ 0.50/cm

cost = rate × circumf.

$= .50 \times 2\pi r$

$= .50 \times 2 \times \frac{22}{7} \times 84$ (12)

= ₹ 26400

(2)

dis. cov. by front wheel

= dis. cov. by rear wheel

no of rev. × circum of front wheel

= no of rev. × circum of rear wheel

$\Rightarrow 1400 \times 2\pi r = n \times 2\pi R$

$1400 \times 40 = n \times 100$

$\Rightarrow n = 560$

NCERT Exemplar Solutions by Dev Anoop (Bathinda)