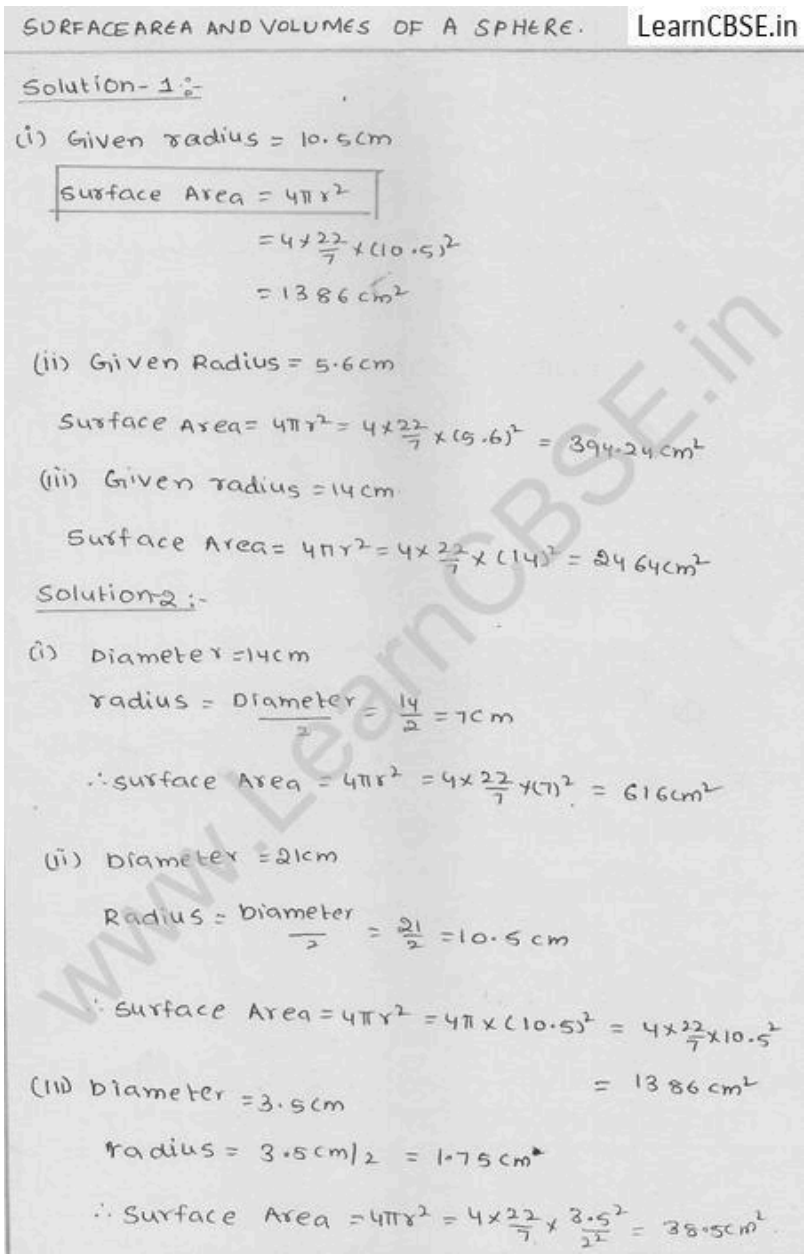
RD Sharma Class 9 Solutions Surface Areas and Volume of a Sphere

RD Sharma Class 9 solutions Chapter 21 Surface Area and volume of A Sphere Ex 21.1



SURFACE AREA AND VOLUMES OF A SPHERE. LearnCBSE.in

Solution-1 :-

(i) Given radius = 10.5cm

Surface Area = $4\pi r^2$

$= 4 \times \frac{22}{7} \times (10.5)^2$

$= 1386 cm^2$

(ii) Given Radius = 5.6cm

Surface Area = $4\pi r^2 = 4 \times \frac{22}{7} \times (5.6)^2 = 394.24 cm^2$

(iii) Given radius = 14cm

Surface Area = $4\pi r^2 = 4 \times \frac{22}{7} \times (14)^2 = 2464 cm^2$

Solution-2 :-

(i) Diameter = 14cm

radius = $\frac{\text{Diameter}}{2} = \frac{14}{2} = 7cm$

$\therefore$ surface Area = $4\pi r^2 = 4 \times \frac{22}{7} \times (7)^2 = 616 cm^2$

(ii) Diameter = 21cm

Radius = $\frac{\text{Diameter}}{2} = \frac{21}{2} = 10.5 cm$

$\therefore$ Surface Area = $4\pi r^2 = 4\pi \times (10.5)^2 = 4 \times \frac{22}{7} \times 10.5^2$

$= 1386 cm^2$

(iii) Diameter = 3.5cm

radius = 3.5cm/2 = 1.75cm

$\therefore$ Surface Area = $4\pi r^2 = 4 \times \frac{22}{7} \times \frac{3.5^2}{2^2} = 38.5 cm^2$

Solution-3:-

the surface Area of the hemisphere $= 2\pi r^2$

$= 2 \times 3.14 \times (10)^2$

$= 628 cm^2$

The surface Area of solid hemisphere $= 3\pi r^2$

$= 3 \times 3.14 \times (10)^2$

$= 942 cm^2$

Solution-4:-

Surface Area of a sphere is $5544 cm^2$

$\Rightarrow 4\pi r^2 = 5544$

$\Rightarrow \frac{4 \times 22}{7} \times r^2 = 5544$

$\Rightarrow r^2 = \frac{5544 \times 7}{88}$

$\Rightarrow r = \sqrt{21cm \times 21cm} = \sqrt{(21)^2}\ cm$

$\Rightarrow r = 21cm.$

Diameter $= 2$(radius)

$= 2(21cm)$

$= 42cm.$

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