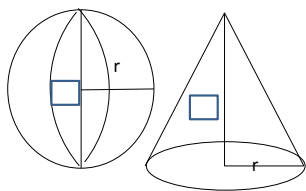


L9 Volume of a Sphere

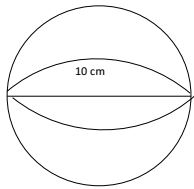
$$V_{\text{sphere}} = 2 V_{\text{cone}}$$
$$= 2 \left(\frac{\pi r^2 \cdot h}{3} \right)$$
$$= 2 \left(\frac{\pi r^2 \cdot 2r}{3} \right)$$
$$= \frac{4\pi r^3}{3}$$



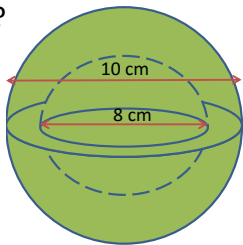
$$V_{\text{sphere}} = \frac{4\pi r^3}{3}$$

$$V_{\text{sphere}} = \frac{4\pi r^3}{3}$$

Ex 1: Find the volume of the sphere with diameter 10 cm



Ex 3:
The interior and exterior diameters of a metallic ball are 8 cm and 10 cm respectively. What is the ball’s mass if the mass of 1 dm³ of this metal is 3 Kg?



Ex 2: Find the volume of the Earth in km³



diameter= 12 756 km

$$r = 6\,378\text{ km}$$

Practice:
5.6 Set 3

