

1/27/2022 M3 Lesson 12/13

Surface Area : Volume
of Spheres →

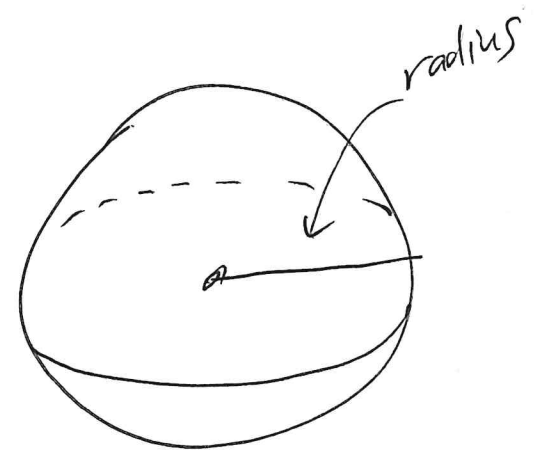
Surface Area of Spheres

$$SA = 4\pi r^2$$



Volume of Sphere

$$V = \frac{4\pi r^3}{3}$$



ie1 SA - sphere

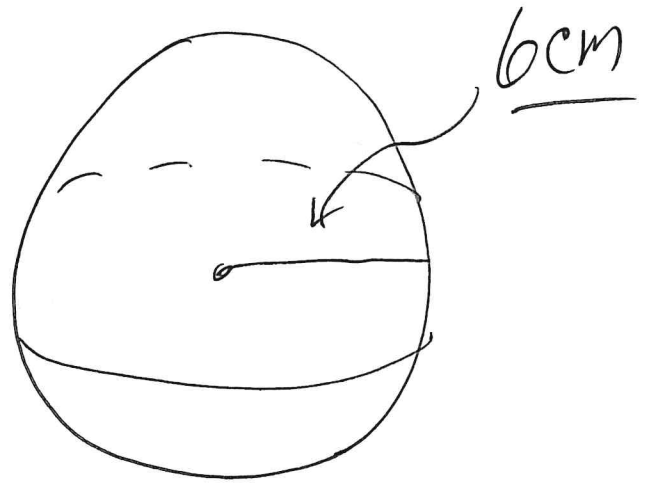


$$SA = 4\pi r^2$$

$$SA = 4\pi (6^2)$$

$$\underline{SA = 144\pi \text{ cm}^2}$$

ie2 Volume - sphere



$$V = \frac{4\pi r^3}{3}$$

$$V = \frac{4\pi (6^3)}{3}$$

$$V = \frac{4\pi \cdot 216}{3}$$

$$V = \frac{864\pi}{3}$$

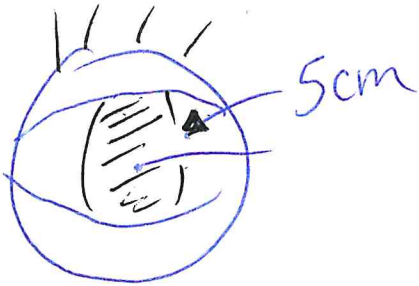
$$V = 288\pi \text{ cm}^3$$

$$288 \cdot 3.14 = \underline{904.32 \text{ cm}^3}$$

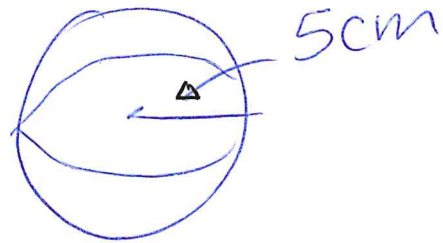
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pgs. 77-78 #1-4

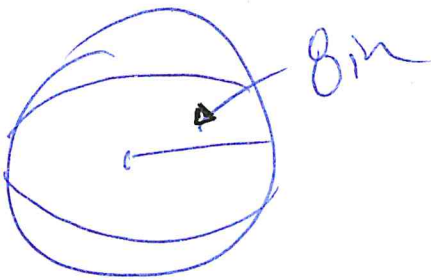
① Find SA



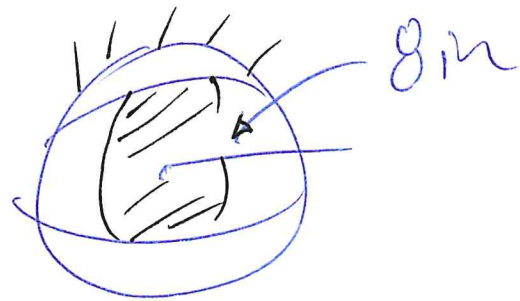
② Find Volume



③ Find SA



④ Find Volume



Prism

$$SA = 2B + \underline{\underline{LA}}'s \quad V = B \cdot h$$

Cylinder

$$SA = 2\pi r h + 2\pi r^2 \quad V = \pi r^2 h$$

Cone

$$SA = \pi r l + \pi r^2 \quad V = \frac{\pi r^2 h}{3}$$

Pyramid

$$V = \frac{B \cdot h}{3}$$

$$SA = \frac{p \cdot l}{2} + B$$

Sphere

$$SA = 4\pi r^2$$

$$V = \frac{4\pi r^3}{3}$$

* FORMULA SHEET *

check your notes for more specifics!