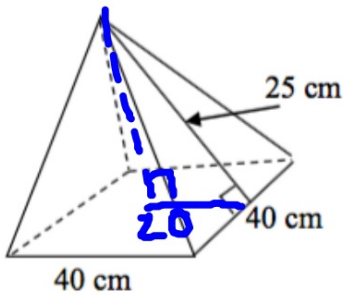


Example 4:

Find the volume of the pyramid.



$$V = \frac{1}{3}(40 \cdot 40)(15)$$

$$8000 \text{ cm}^3$$

$$h^2 + 20^2 = 25^2$$

$$h = 15$$

Example 5:

An ice cream cone is 7 cm tall and 4 cm in diameter. About how much ice cream can fit entirely inside the cone? Round your answer to the nearest whole number.

$$V = \frac{1}{3}\pi(2)^2 \cdot 7$$

$$29 \text{ cm}^3$$

Summary:

$$V_{\text{PYR}} = \frac{1}{3}B \cdot h \quad h = \text{altitude}$$

9.5 EQ: **HOW DO YOU FIND SA AND V OF A SPHERE?**

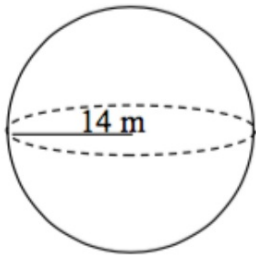
A SPHERE is the set of all points in space equidistant from a given point called the CENTER

$$\text{S.A. Sphere} = 4\pi r^2$$

$$\text{Volume Sphere} = \frac{4}{3}\pi r^3$$

Example 1:

Find the surface area and volume of the sphere. Leave your answer in terms of π .

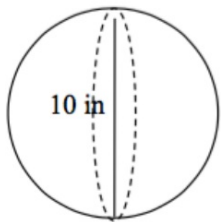


$$\begin{aligned} SA &= 4\pi r^2 = 4\pi (14)^2 = \\ &784\pi \text{ m}^2 \end{aligned}$$

$$\begin{aligned} V &= \frac{4}{3}\pi r^3 = \frac{4}{3}\pi (14)^3 \\ &= 3658.\bar{6}\pi \text{ m}^3 \end{aligned}$$

Example 2:

Find the surface area and volume of the sphere. Leave your answer in terms of π .



$$SA = 100\pi \text{ in}^2$$

$$V = 166\frac{2}{3}\pi \text{ in}^3$$

Example 3:

The circumference of a rubber ball is 13 cm. What is its surface area rounded to the nearest whole number?

$$5.4 \text{ cm}^2$$

$$\text{Ex 4: } 4.8 \text{ in}^3$$

$$\text{Ex 5: } 25594.6 \text{ ft}^3$$