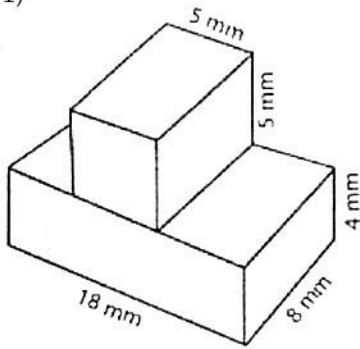


Find the volume of the compound figures (to the nearest hundredth where necessary)

1)



$$V = l \cdot w \cdot h$$

$$V = 18 \cdot 8 \cdot 4$$

$$V = 576 \text{ mm}^3$$

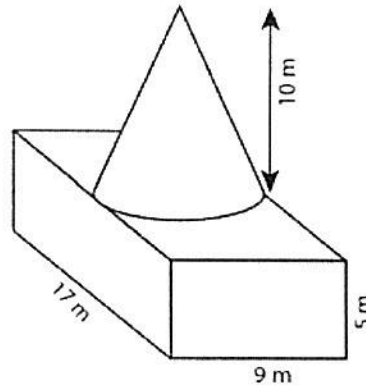
$$V = l \cdot w \cdot h$$

$$V = 5 \cdot 5 \cdot 8$$

$$V = 200 \text{ mm}^3$$

$$V = 776 \text{ mm}^3$$

2)



$$V = l \cdot w \cdot h$$

$$V = 17 \cdot 9 \cdot 5$$

$$V = 765 \text{ m}^3$$

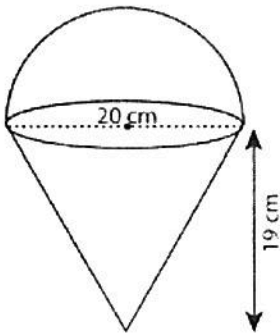
$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{1}{3} \pi (4.5)^2 (10)$$

$$V = 212.06 \text{ m}^3$$

$$977.06 \text{ m}^3$$

3)



$$V = \frac{1}{3} \pi r^2 h$$

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

$$V = \frac{1}{3} \pi (10)^2 (19)$$

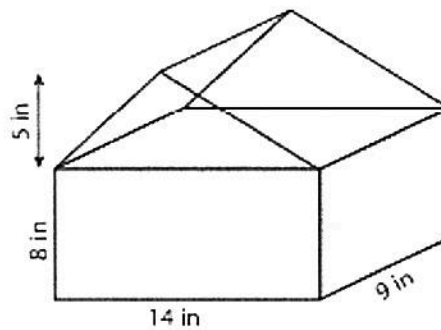
$$V = \frac{4}{3} \pi (10)^3$$

$$V = 1989.68 \text{ cm}^3$$

$$V = 4188.79 \text{ cm}^3$$

$$6178.47 \text{ cm}^3$$

4)



$$V = l \cdot w \cdot h$$

$$V = 8 \cdot 14 \cdot 9$$

$$V = 1008 \text{ in}^3$$

$$V = B h$$

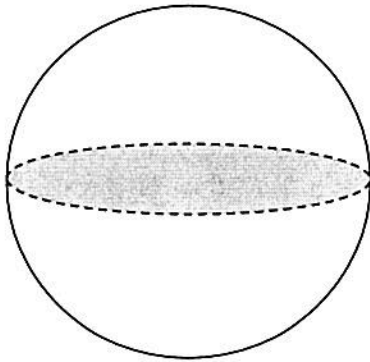
$$V = \frac{1}{2} b h \cdot h$$

$$V = \frac{1}{2} \cdot 14 \cdot 5 \cdot 9$$

$$V = 315 \text{ in}^3$$

$$1323 \text{ in}^3$$

5) Find the volume of this sphere if the area of the shaded circle is $25\pi \text{ cm}^2$. (nearest tenth)



$$A = \pi r^2$$

$$25\pi = \pi r^2$$

$$25 = r^2$$

$$r = 5$$

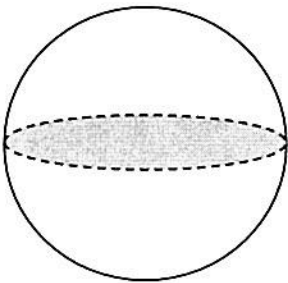
$$V = \frac{4}{3}\pi r^3$$

$$V = \frac{4}{3}\pi (5)^3$$

$$V = 523.6 \text{ cm}^3$$

6) Find the volume of each sphere shown below: (nearest hundredth)

a) Circumference = $14\pi \text{ cm}$



$$C = \pi d$$

$$14\pi = \pi d$$

$$14 = d$$

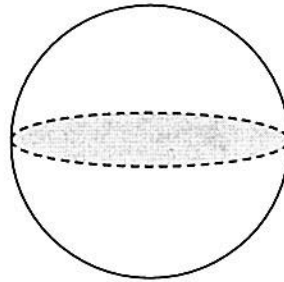
$$r = 7$$

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

$$V = \frac{4}{3}\pi (7)^3$$

$$V = 1436.76 \text{ cm}^3$$

b) Shaded area = $49\pi \text{ in}^2$



$$A = \pi r^2$$

$$49\pi = \pi r^2$$

$$49 = r^2$$

$$r = 7$$

$$V = \frac{4}{3}\pi (7)^3$$

$$V = 1436.76 \text{ in}^3$$

7) What is the radius of a sphere whose volume is $288\pi \text{ cm}^3$?

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

$$288\pi = \frac{4}{3}\pi r^3$$

$$\frac{3 \cdot 288}{4} = \frac{4}{3} r^3 \cdot \frac{3}{4}$$

$$216 = r^3$$

$$r = 6 \text{ cm}$$