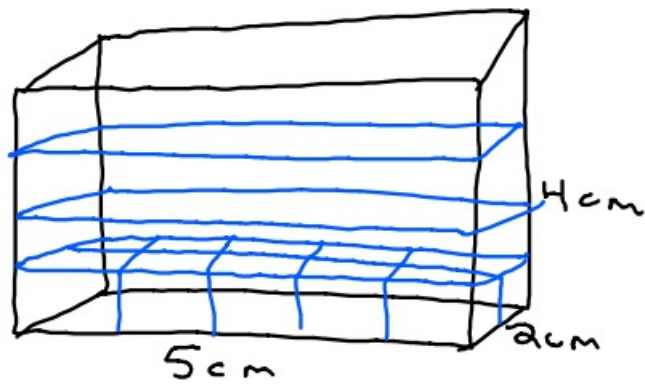


2-27-20 2nd Geo



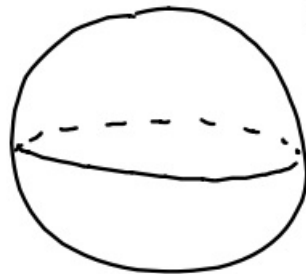
4 layers of 10
 40 cm^3



Cylinder

$$V = \pi \cdot r^2 \cdot h$$

$$S.A. = 2\pi r^2 + 2\pi r h$$

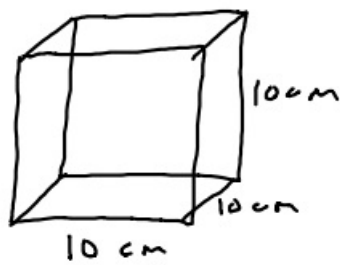


Sphere

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

$$S.A. = 4 \cdot \pi r^2$$

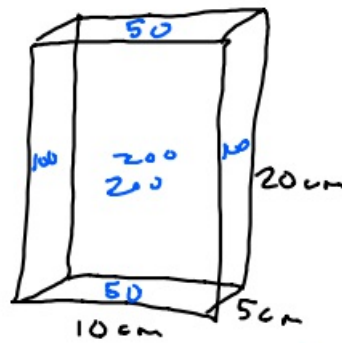
Box A



$$\text{Volume} = 1000 \text{ cm}^3$$

$$\text{Surface Area} = 600 \text{ cm}^2$$

Box B



$$\text{Volume} = 1000 \text{ cm}^3$$

$$\text{Surface Area} = 700 \text{ cm}^2$$

- ① What is the volume of a cone that is 10 cm tall and has a radius of 6 cm?

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

$$V = \frac{1}{3} \cdot \pi \cdot 6^2 \cdot 10$$

$$\approx 377.0 \text{ cm}^3$$

- ② A cube that is 9 cm on a side is placed inside a cube that is 10 cm on a side. How much space is left?

$$\frac{10 \text{ cm on a side}}{V = 1000 \text{ cm}^3} - \frac{9 \text{ cm on a side}}{729 \text{ cm}^3}$$

$$271 \text{ cm}^3 \text{ is left}$$