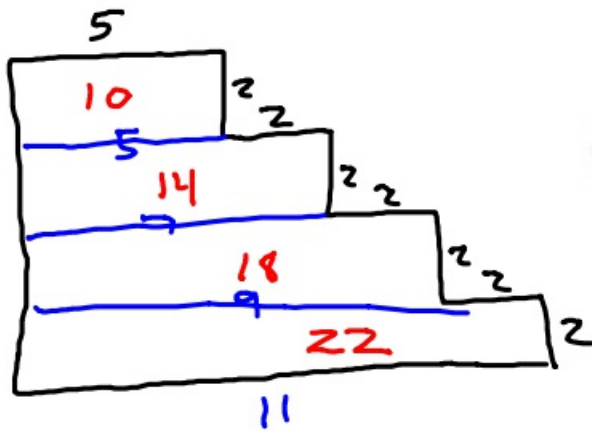


2-14-19 5th Geo

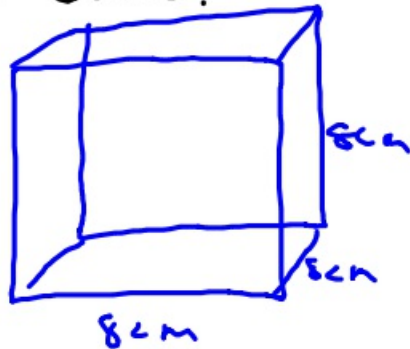
①



64 cm^2

②

A sphere with a diameter of 8 cm is placed inside a cube that is 8 cm on a side. How much volume is left in the cube?

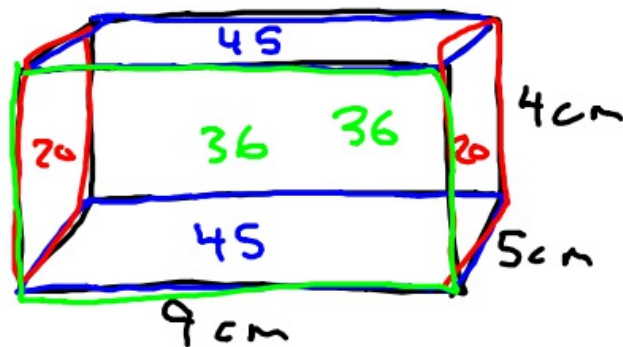


$$\begin{aligned} V &= 512 \text{ cm}^3 \\ &\quad - 268.08 \\ \hline &\approx 243.9 \text{ cm}^3 \end{aligned}$$



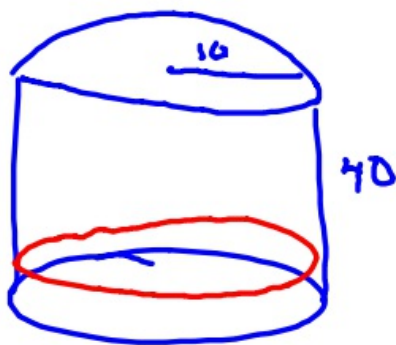
$$\begin{aligned} V &= \frac{4}{3} \pi r^3 \\ &= \frac{4}{3} \pi \cdot 4^3 \\ &\approx 268.08 \end{aligned}$$

- ③ What is the surface area of the box below?



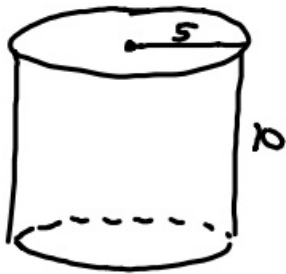
$$202 \text{ cm}^2$$

- ④ What is the volume of a cylinder with a radius of 10 cm and a height twice its diameter?



$$\begin{aligned} A &= \pi r^2 h \\ &= \pi \cdot 10^2 \cdot 40 \\ &= 4000\pi \\ &\approx 12,566 \text{ cm}^3 \end{aligned}$$

⑤ What is the Surface area of cylinder below?



$$\pi \cdot 5^2 + \pi \cdot 5^2$$

$$25\pi + 25\pi$$

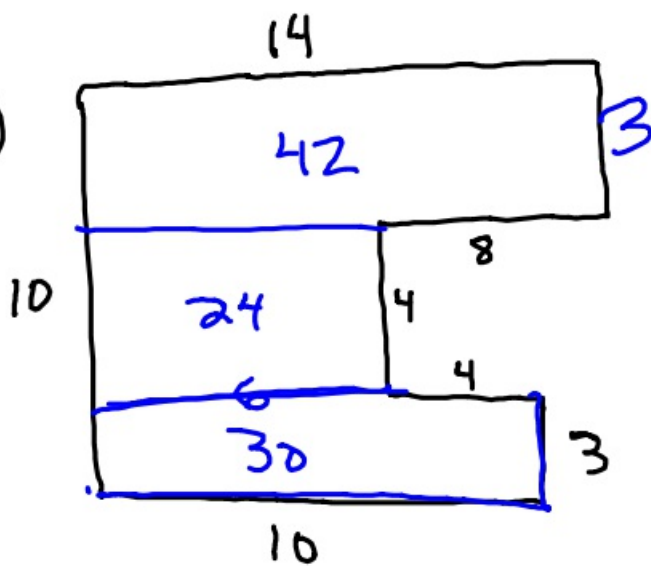
$\pi \cdot d$
Circumference 50π

$$100\pi \quad h=10$$

$$\pi \cdot 10$$

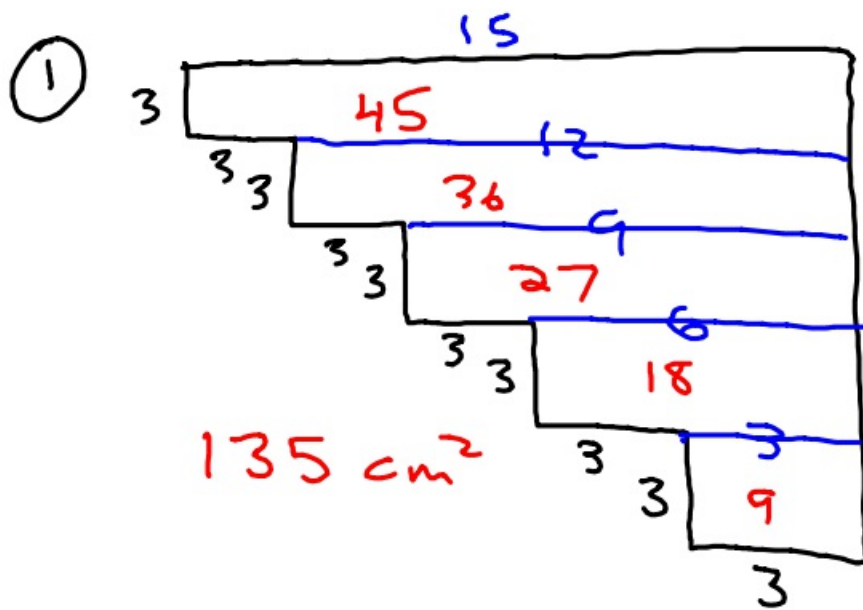
$$150\pi$$

⑥

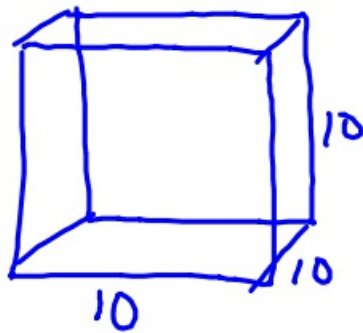


$$96 \text{ cm}^2$$

2-14-19 6th Geo



- ② What is the amount of space left inside a 10 cm cube if a sphere with diameter 10 is placed inside the cube?



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

$$- 523.6$$

$$\hline 476.4 \text{ cm}^3$$

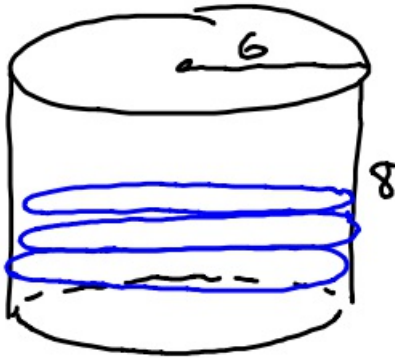


$$V = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \pi \cdot 5^3$$

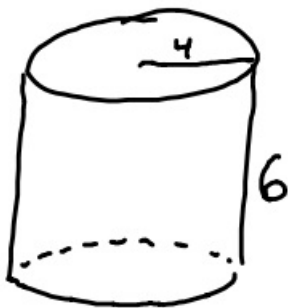
$$\approx 523.6 \text{ cm}^3$$

③ Volume of



$$\begin{aligned} & \pi \cdot r^2 \cdot h \\ & \pi \cdot 6^2 \cdot 8 \\ & 288\pi \\ & \approx 904.8 \text{ in}^3 \end{aligned}$$

④ What is the surface area of



$$\begin{aligned} & \pi \cdot 4^2 + \pi \cdot 4^2 \\ & 16\pi + 16\pi \end{aligned}$$

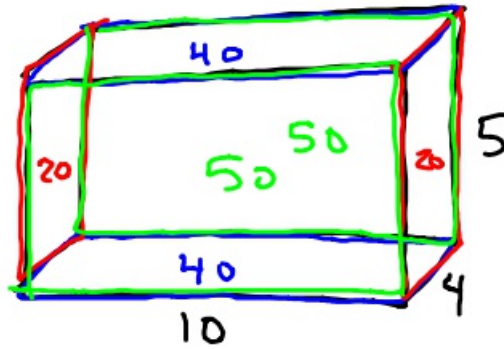
$$32\pi$$

circumference

$$\begin{aligned} & \pi \cdot d \cdot h \\ & \pi \cdot 8 \cdot 6 \\ & 48\pi \end{aligned}$$

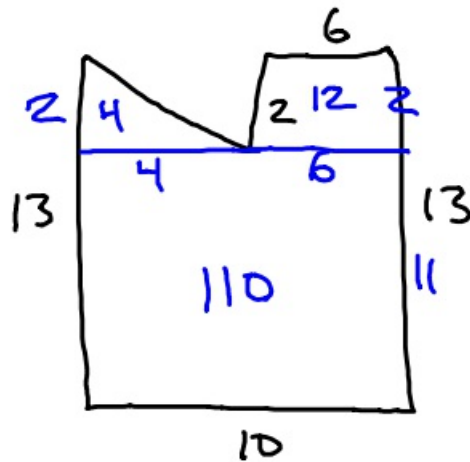
$$80\pi$$

⑤ Surface Area



$$220 \text{ cm}^2$$

⑥



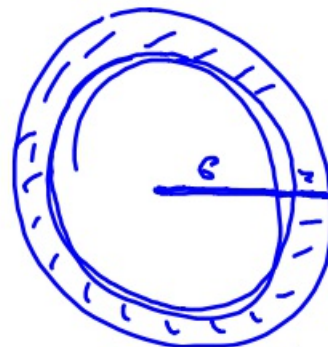
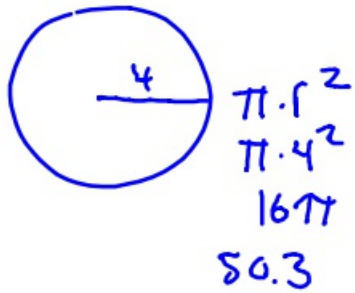
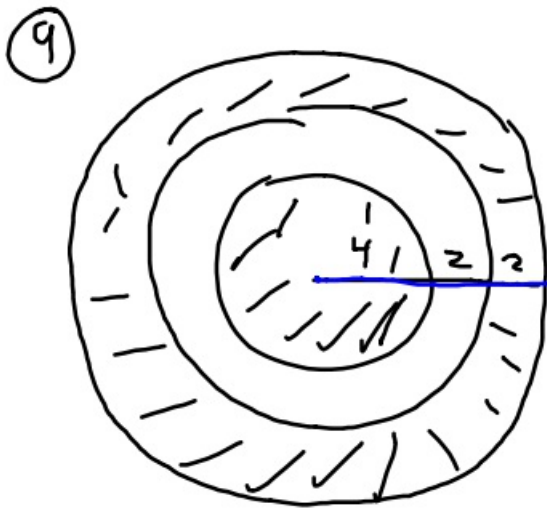
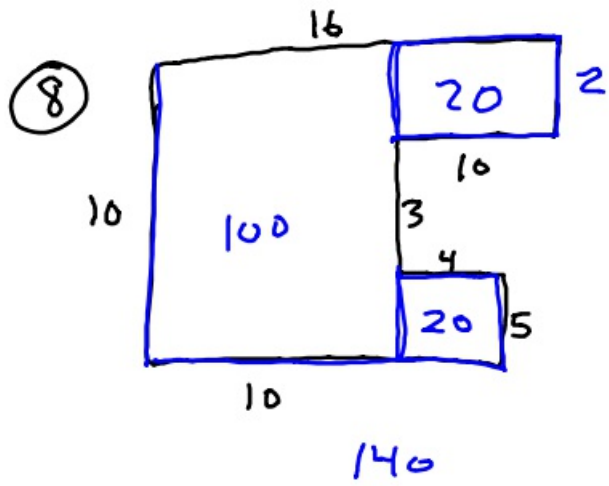
$$126 \text{ cm}^2$$

⑦



$$V = \frac{1}{3} B h$$

$$\frac{1}{3} \cdot \frac{81}{81} \cdot 6$$



Whole - hole

$$\pi \cdot 8^2 - \pi \cdot 6^2$$

$$64\pi - 36\pi$$

$$28\pi$$

$$88.0$$

$$\begin{array}{r} 88.0 \\ + 50.3 \\ \hline \approx 138.3 \end{array}$$

