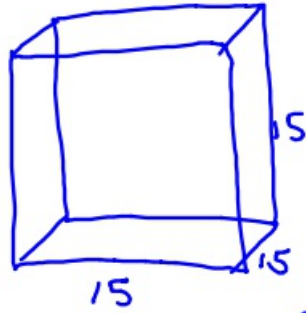
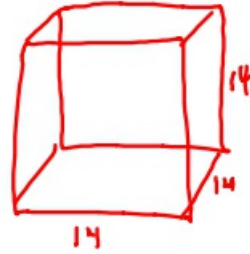


2-19-19 5<sup>th</sup> Geo

- ① How much volume is left in a 15 inch cube if a 14 inch cube is placed in it?

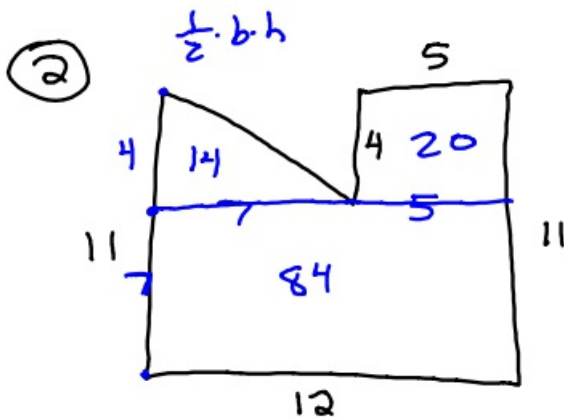


$$3375 \text{ in}^3$$

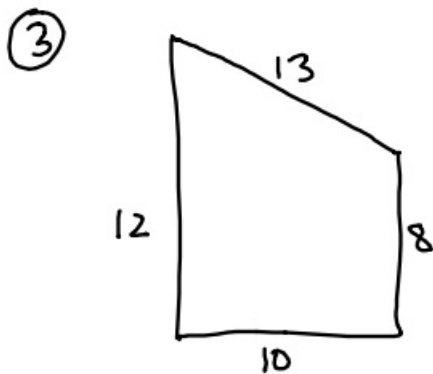


$$2,744 \text{ in}^3$$

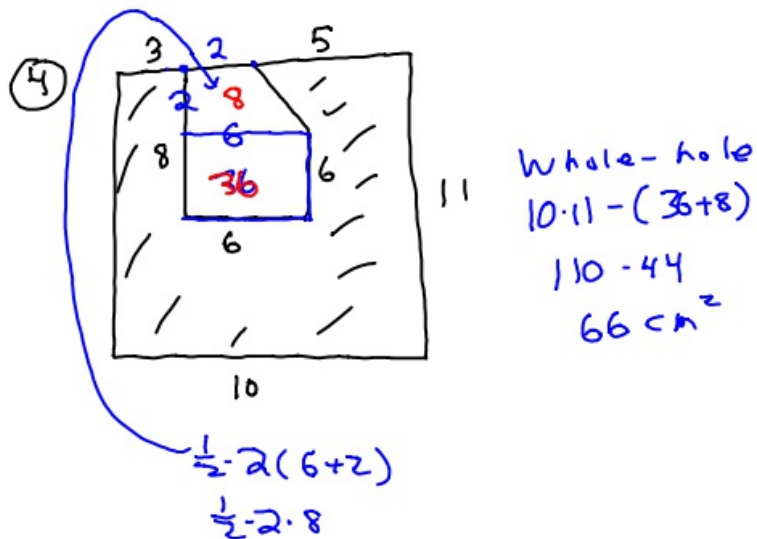
$$631 \text{ in}^3$$



$$84 + 20 + 14 = 118 \text{ cm}^2$$



$$\begin{aligned} A &= \frac{1}{2} \cdot h (b_1 + b_2) \\ &= \frac{1}{2} \cdot 10 (12 + 8) \\ &= \frac{1}{2} \cdot 10 \cdot 20 \\ &= 100 \text{ cm}^2 \end{aligned}$$



- ⑤ What is the surface area of a cylinder with a radius of 4 cm and a height of 6 cm?

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

$$S.A. = 2 \cdot \pi \cdot 4^2 + 2\pi \cdot 4 \cdot 6$$

$$\approx 251.3$$

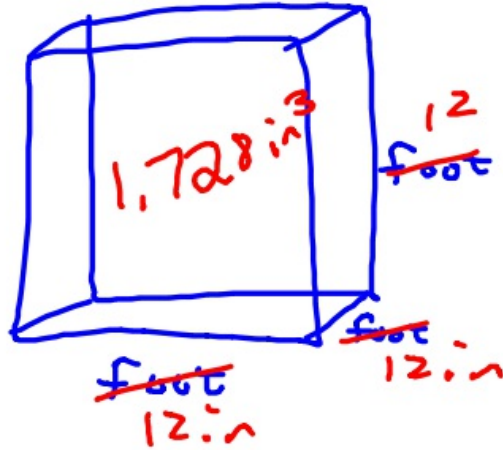
- ⑥ Sphere A has a radius of 2 cm. Sphere B has a radius of 10 cm. How many times larger is the volume of Sphere B than Sphere A?

<u>Sphere A</u>	<u>Sphere B</u>
$V = \frac{4}{3}\pi r^3$	$V = \frac{4}{3}\pi r^3$
$V \approx 33.5\dots$	$V \approx 4188.8\dots$

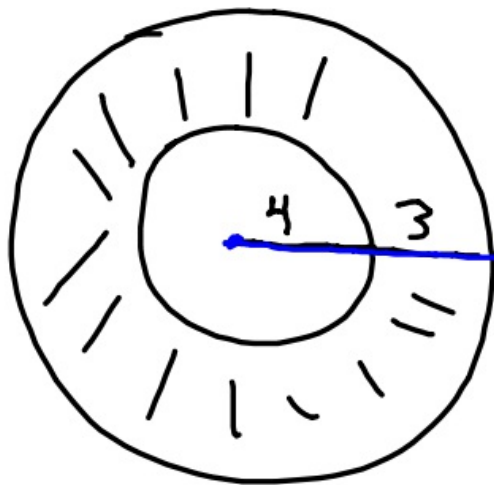
$$\frac{4188.8\dots}{33.5\dots} = 125$$

⑦

How many cubic inches  
are in a cubic foot?



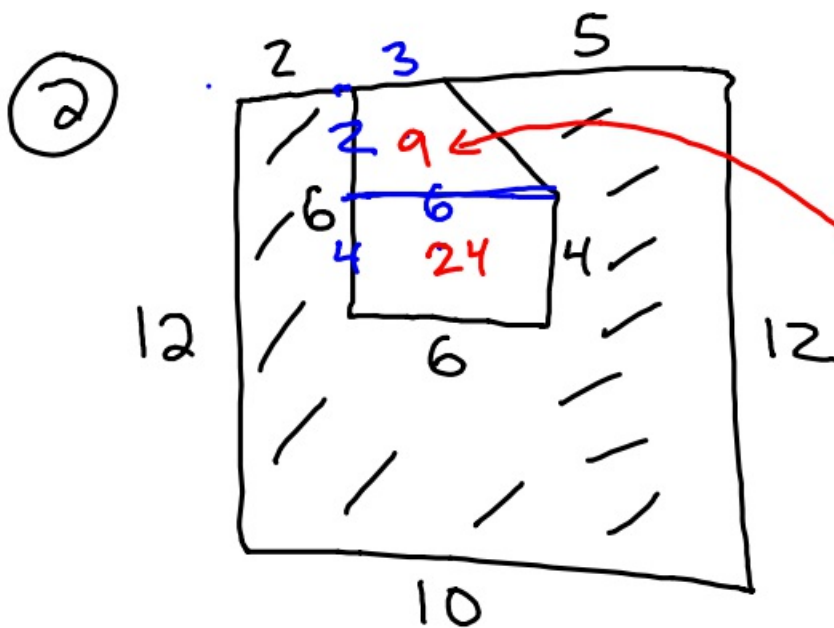
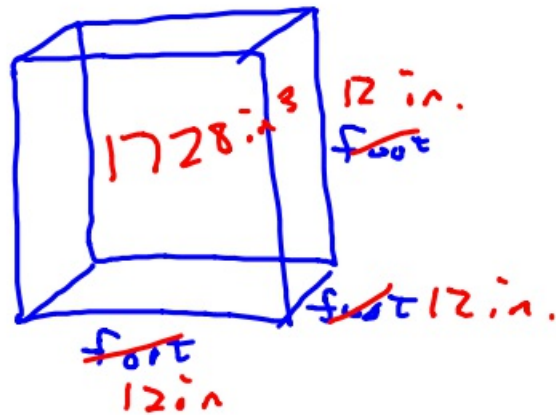
⑧



whole - hole  
 $\pi \cdot 7^2 - \pi \cdot 4^2$   
 $49\pi - 16\pi$   
 $33\pi$

2-19-19 6<sup>th</sup> Geo

- ① How many cubic inches are in a cubic foot?



$$\frac{1}{2} \cdot h(b_1 + b_2)$$
$$\frac{1}{2} \cdot 2(6 + 2)$$
$$\frac{1}{2} \cdot 2 \cdot 8$$
$$8$$

whole - hole

$$12 \cdot 10$$

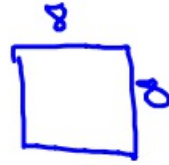
$$120 - (9 + 24)$$

$$120 - 33$$

$$87 \text{ cm}^2$$

- ③ What is the volume of a pyramid with a square base of 8 cm and a height of 7 cm?

$$\begin{aligned} V &= \frac{1}{3} B h \\ &= \frac{1}{3} \cdot 64 \cdot 7 \\ &\approx 149 \frac{1}{3} \end{aligned}$$

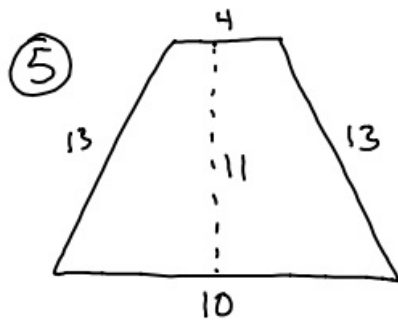


- ④ The radius of sphere A is 2 cm. The radius of sphere B is 10 cm. How many times larger is the volume of sphere B?

$$\begin{aligned} &\text{Sphere A} \\ &\hline V &= \frac{4}{3} \pi r^3 \\ V &= \frac{4}{3} \cdot \pi \cdot 2^3 \\ &\approx 33.5 \end{aligned}$$

$$\begin{aligned} &\text{Sphere B} \\ &\hline V &= \frac{4}{3} \pi r^3 \\ V &= \frac{4}{3} \pi \cdot 10^3 \\ &\approx 4188.8 \end{aligned}$$

$$\frac{4188.8}{33.5} = 125$$

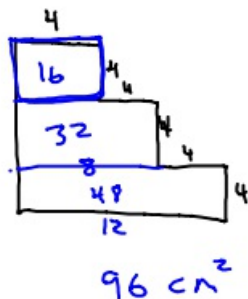


$$\begin{aligned}
 A &= \frac{1}{2} \cdot h \cdot (b_1 + b_2) \\
 &= \frac{1}{2} \cdot 11 \cdot (10 + 4) \\
 &= 77 \text{ cm}^2
 \end{aligned}$$

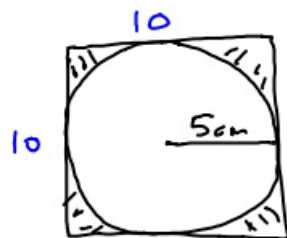
⑥ What is the surface area of a cylinder that has a radius of 8 cm and a height of 10 cm?

$$\begin{aligned}
 \text{S.A.} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi \cdot 8^2 + 2\pi \cdot 8 \cdot 10 \\
 &\approx 904.8 \text{ cm}^2
 \end{aligned}$$

⑦



⑧



whole - hole

$$10 \cdot 10 - \pi \cdot 5^2$$

$$100 - 25\pi$$

$$\approx 21.5 \text{ cm}^2$$