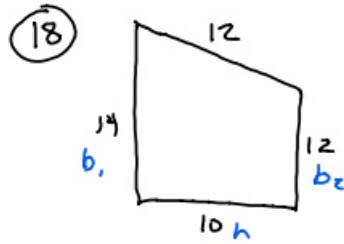


3-2-20 6<sup>th</sup> Geo

Ch. 10 PT 1



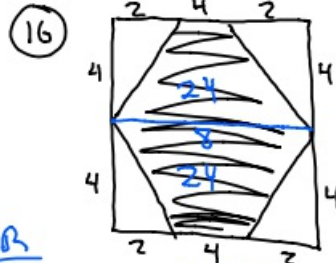
$$A = \frac{1}{2} \cdot h \cdot (b_1 + b_2)$$

$$\frac{1}{2} \cdot 10(12 + 14)$$

$$5 \cdot 26$$

$$130$$

Ch. 10 PT 2



$$\frac{1}{2} \cdot 4(4+8)$$

$$2 \cdot 12$$

$$24 \cdot 2 = 48$$

OR

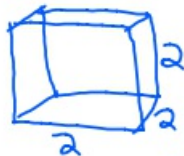
$$8 \cdot 8 - (4 \Delta's)$$

$$64 - 16$$

$$48$$

New questions

- ① A sphere is put in a cube that is 2 cm on a side. The sphere is touching all sides of the cube. How much space is left inside the cube?



$$V = 8 \text{ cm}^3$$



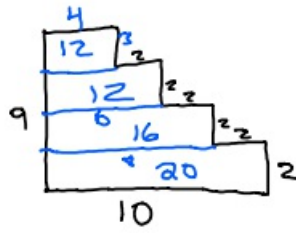
$$V = \frac{4}{3} \cdot \pi \cdot 1^3$$

$$\approx \frac{4}{3} \pi$$

$$8 - \frac{4}{3} \pi$$

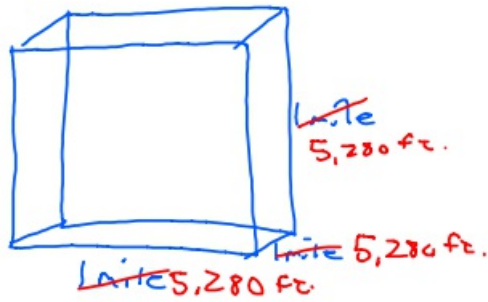
$$\approx 3.8 \text{ cm}^3$$

②



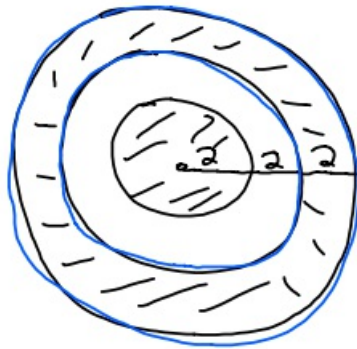
$$60 \text{ cm}^2$$

③ How many cubic feet are in a cubic mile?



$$1.5 \times 11 \\ \approx 150,000,000,000 \text{ ft}^3$$

④



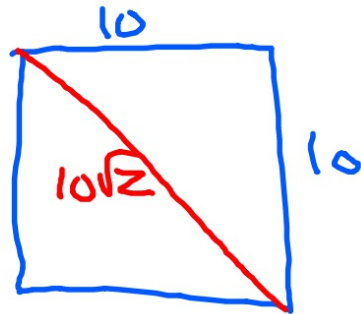
Blue  
Whole-hole  
 $\pi \cdot 6^2 - \pi \cdot 4^2$   
 $36\pi - 16\pi$   
 $20\pi$

Center  
 $\pi \cdot 2^2$   
 $4\pi$

$24\pi$

⑤ What is the volume of a pyramid with a square base of 10 cm and a height half the diagonal length of the base?

$$V = \frac{1}{3} Bh$$
$$\frac{1}{3} \cdot 100 \cdot 5\sqrt{2}$$
$$235.7$$



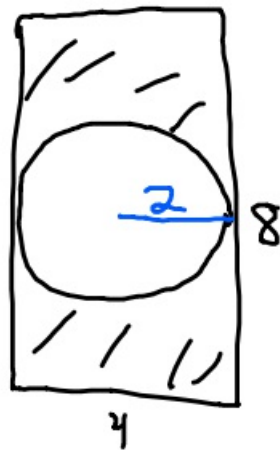
3-2-20 7<sup>th</sup> Geo

Ch. 10 PT 2



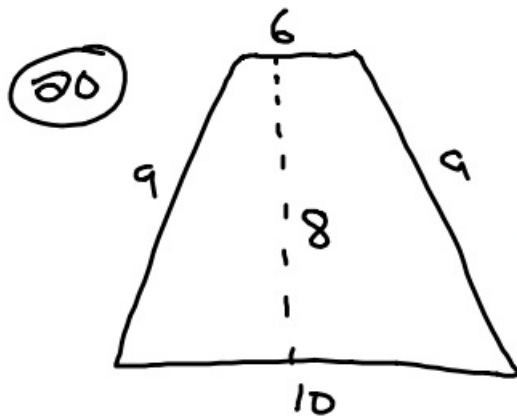
$$V = \frac{1}{3} \cdot B \cdot h$$
$$\frac{1}{3} \cdot 81 \cdot 6$$
$$162 \text{ cm}^3$$

PT 2  
⑫



Whole-hole

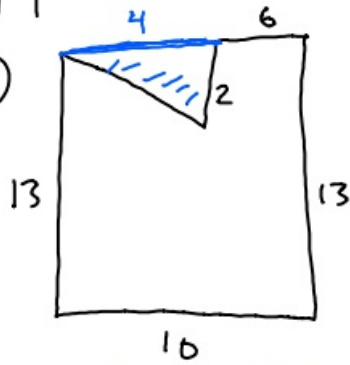
$$4 \cdot 8 - \pi \cdot 2^2$$
$$32 - 4\pi$$
$$\approx 19.4$$



$$A = \frac{1}{2} \cdot h \cdot (b_1 + b_2)$$
$$\frac{1}{2} \cdot 8 \cdot (10 + 6)$$
$$4 \cdot 16$$
$$64 \text{ cm}^2$$

PT 1

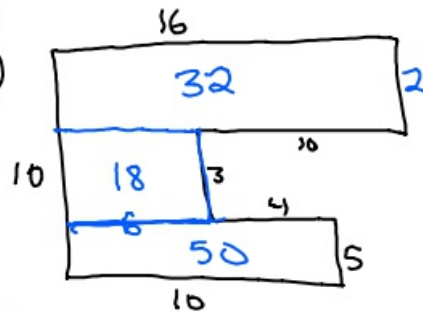
(16)



Whole-hole  
 $13 \cdot 10 - \frac{1}{2} \cdot 2 \cdot 4$   
 $130 - 4$   
 $126 \text{ cm}^2$

PT 2

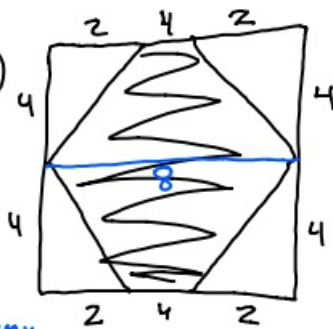
(21)



$$\begin{array}{r} 32 \\ 18 \\ 50 \\ \hline 100 \text{ cm}^2 \end{array}$$

PT 2

(16)

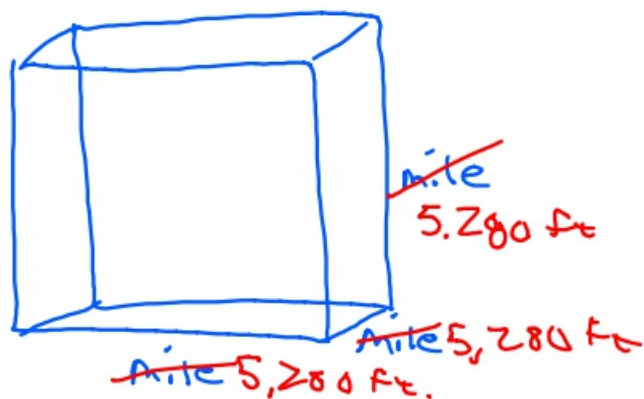


Harder way  
 Whole-hole  
 $4 \Delta$ 's  
 $8 \cdot 8 - [4 + 4 + 4 + 4]$   
 $64 - 16$   
 $48 \text{ cm}^2$

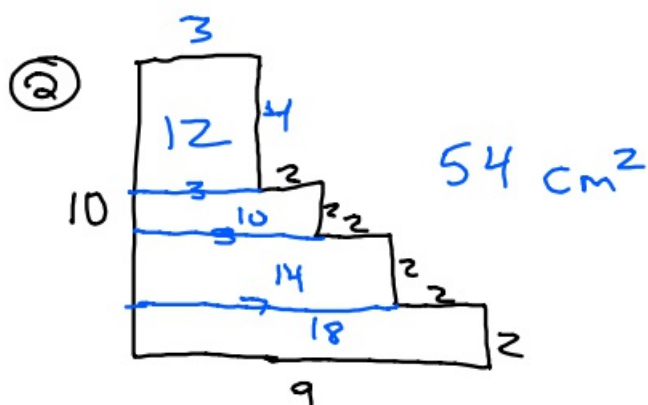
Easier way  
 2 trapezoids  
 $A = \frac{1}{2} \cdot h \cdot (b_1 + b_2)$   
 $\frac{1}{2} \cdot 4 \cdot (8 + 4)$   
 24  
 2 of them, so  
 total area is  
 $2 \times 24 = 48$

New

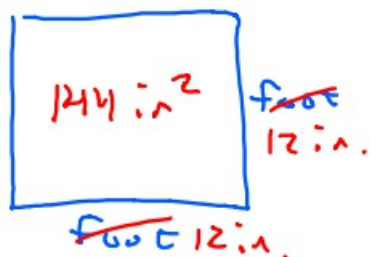
- ① How many cubic feet are in a cubic mile?



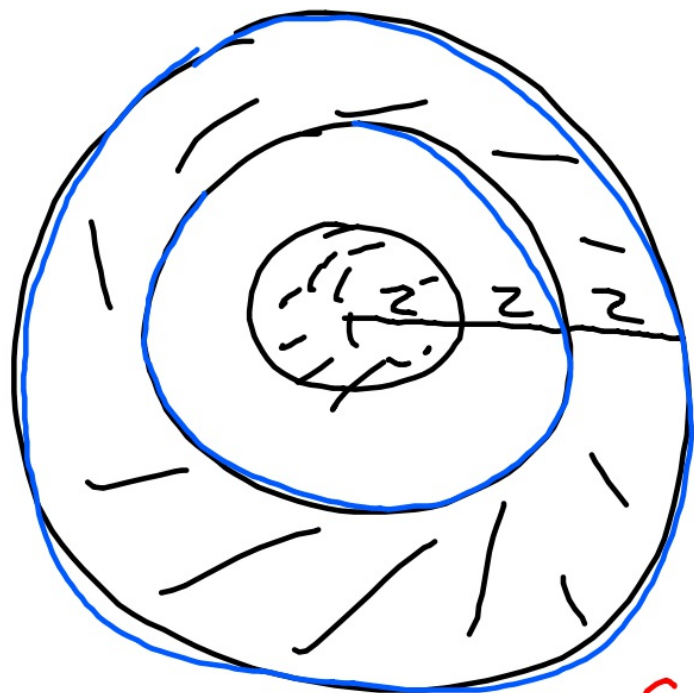
$$= 1.47 \text{ E } 11$$
$$147,000,000,000 \text{ ft}^3$$



- ③ How many square inches are in a square foot?



4



Blue part  
whole-hole  
 $\pi \cdot 6^2 - \pi \cdot 4^2$   
 $36\pi - 16\pi$   
 $20\pi$

Center  
 $\pi \cdot 2^2$   
 $4\pi$

$20\pi + 4\pi$   
 $24\pi$