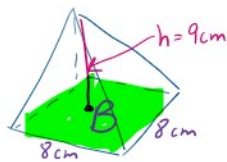


11.3 and 11.4 wk solutions

11.3 wk

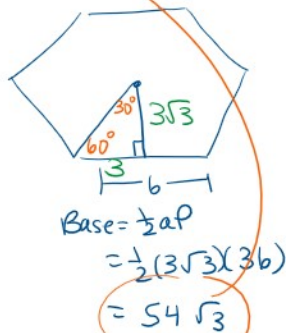
$$\begin{aligned} 1) V &= \frac{1}{3}(B)(h) \\ &= \frac{1}{3}(s^2)(h) \\ &= \frac{1}{3}(8^2)(9) \\ &= \boxed{192 \text{ cm}^3} \end{aligned}$$



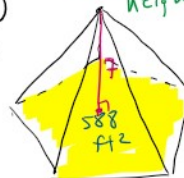
cone

$$\begin{aligned} 3) V &= \frac{1}{3}\pi r^2 h \\ &= \frac{1}{3}\pi (6)^2 (14) \\ &= \boxed{168\pi \text{ cm}^3} \end{aligned}$$

$$\begin{aligned} 2) V &= \frac{1}{3}(B)(h) \\ &= \frac{1}{3}(54\sqrt{3})(5) \\ &= \boxed{90\sqrt{3} \text{ u}^3} \end{aligned}$$

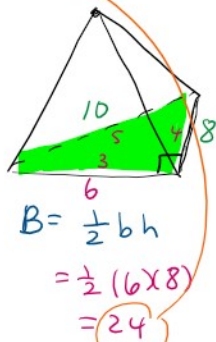


$$\begin{aligned} 4) V &= \frac{1}{3}(B)(h) \\ V &= \frac{1}{3}(588)(7) \\ &= \boxed{1372 \text{ ft}^3} \end{aligned}$$



$$\begin{aligned} 6) V &= \frac{1}{3}\pi r^2 h \\ 196\pi &= \frac{1}{3}\pi r^2 (12) \\ 196 &= 4r^2 \\ \sqrt{49} &= \sqrt{r^2} \\ 7 &= r \\ d &= \boxed{14 \text{ cm}} \end{aligned}$$

$$\begin{aligned} 5) V &= \frac{1}{3}(B)h \\ 144 &= \frac{1}{3}(24)h \\ 144 &= 8h \\ 18 \text{ cm} &= h \end{aligned}$$



7) A, B, and D

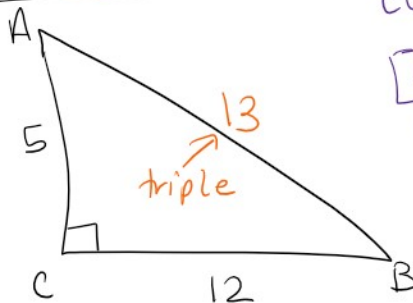
$$\sin B = \frac{x}{13}$$

$$13 \sin B = x \quad \leftarrow \text{option A}$$

$$\tan B = \frac{x}{12}$$

$$12 \tan B = x \quad \leftarrow \text{option D}$$

(X)



$$\cos A = \frac{x}{13}$$

$$13 \cos A = x \quad \leftarrow \text{option B}$$

$$\tan A = \frac{12}{x}$$

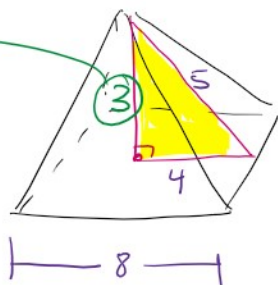
$$x = \frac{12}{\tan A}$$

option C is not valid

$$8) V = \frac{1}{3}(B)(h)$$

$$V = \frac{1}{3}(8^2)(3)$$

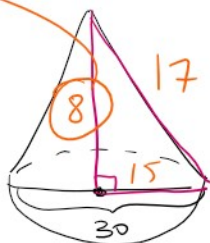
$$V = \boxed{64 \text{ in}^3}$$



$$9) V = \frac{1}{3}\pi r^2 h$$

$$= \frac{1}{3}\pi (15)^2 (8)$$

$$= \boxed{600\pi \text{ u}^3}$$



$$10) V_{\text{cyl}} = \pi r^2 h$$

$$V = \pi (4)^2 (9)$$

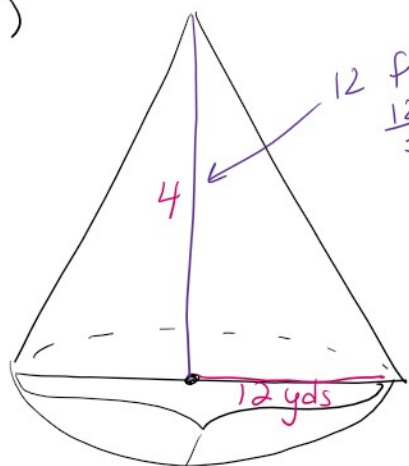
$$V = 144\pi \text{ cm}^3$$

$$\text{Weight} = (144\pi)(1.8)$$

$$= \boxed{814.30 \text{ grams}}$$

wrong on the answer
key in packet

11)



$$\text{diam} = 72 \text{ ft}$$

$$(\text{or } \frac{72}{3} = 24 \text{ yds})$$

$$r = 12 \text{ yds}$$

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

$$= \frac{1}{3}\pi (12)^2 (4)$$

$$= 603.186 \text{ yd}^3$$

She has plenty!
(needs 350 yd^3 to
finish the job.)

100 3 - 27 yds

$$r = 12 \text{ yds}$$

$$12) V_{\text{tower}} = V_{\text{prism}} + V_{\text{pyramid}}$$

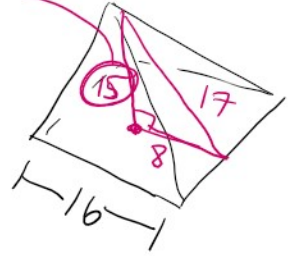
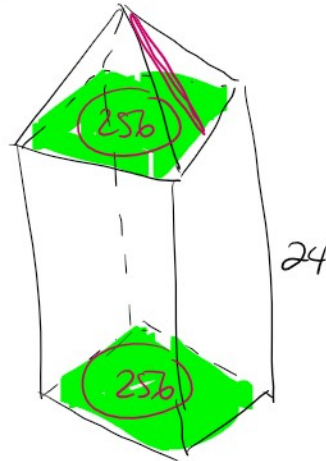
$$= Bh_1 + \frac{1}{3} Bh_2$$

same base for each

$$= 256(24) + \frac{1}{3}(256)(15)$$

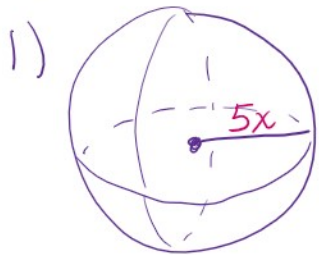
$$= 6144 + 1280$$

$$= \boxed{7424 \text{ ft}^3}$$



Base is a square
 $P = 64$ $A = 16^2 = 256$
 $\text{side} = \frac{64}{4} = 16$

11.4 wk

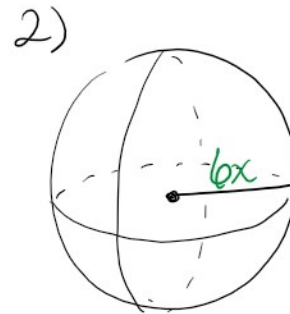


$$V = \frac{4}{3} \pi r^3$$

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

$$= \frac{4}{3} \pi \cdot \frac{125x^3}{1}$$

$$= \boxed{\frac{500x^3 \pi}{3}}$$

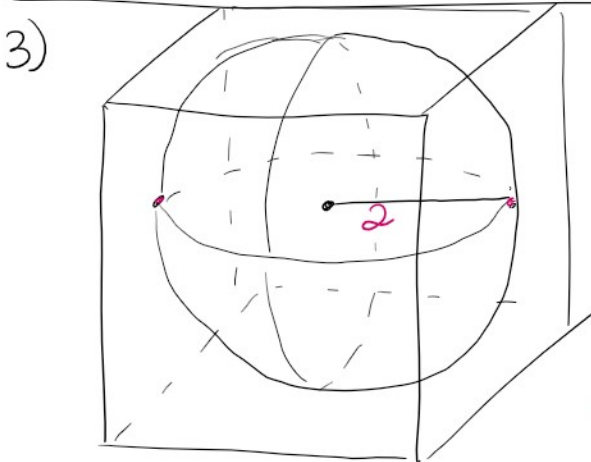


$$V = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \pi (6x)^3$$

$$= \frac{4}{3} \pi \cdot \frac{216x^3}{1}$$

$$= \boxed{288\pi x^3 \text{ or } 288x^3 \pi}$$



$$V_{\text{cube}} = e^3$$

$$\sqrt[3]{64} = \sqrt[3]{e^3}$$

$$4 = e$$

$$V_{\text{sphere}} = \frac{4}{3} \pi r^3$$



also is diameter
of the sphere

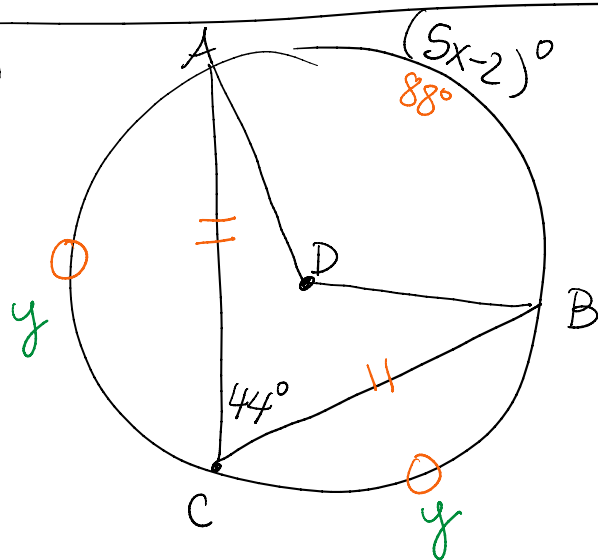
$$V_{\text{sphere}} = \frac{4}{3} \pi r^3$$

$$= \frac{4}{3} \pi (2)^3$$

$$= \frac{4}{3} \pi \cdot \frac{8}{1}$$

$$= \boxed{\frac{32\pi}{3} \text{ ft}^3}$$

4)



$$5x - 2 = 88$$

$$5x = 90$$

$$\boxed{x = 18}$$

(A)

$$2y + 88 = 360$$

$$2y = 272$$

$$y = \boxed{136^\circ = \widehat{BC}}$$