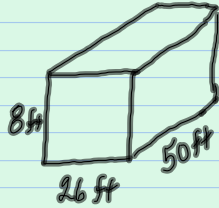


Ch. 1 # 22, 39, 40, 41, 43

22.



$V = ? \text{ m}^3, \text{ cm}^3$

$$V = l \cdot w \cdot h$$

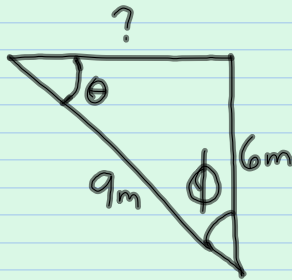
$$= 8 \text{ ft} \cdot 26 \text{ ft} \cdot 50 \text{ ft}$$

$$= 10,400 \text{ ft}^3$$

$$10,400 \text{ ft}^3 \left(\frac{1 \text{ m}}{3.281 \text{ ft}} \right)^3 = 294.45 \text{ m}^3 \left(\frac{100 \text{ cm}}{1 \text{ m}} \right)^3$$

$= 294 \times 10^6 \text{ cm}^3$

39.



a) $a = \sqrt{9^2 - 6^2}$
 $= 6.7 \text{ m}$

b) $\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{6}{6.7} = 0.9$

c) $\sin \phi = \frac{\text{opp}}{\text{hyp}} = \frac{6.7}{9} = 0.74$

40)



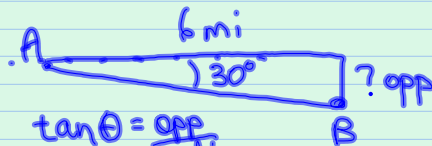
$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

$$\text{opp} = \text{hyp} \sin \theta$$

$$= 30 \sin 20$$

$$= 10.26 \text{ m}$$

41)



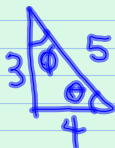
$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

$$\text{opp} = \text{adj} \tan \theta$$

$$= 6 \tan 30$$

$$= 3.46 \text{ mi}$$

43.



- a) 3
- b) 3
- c) $\frac{4}{5}$

- d) $\frac{4}{5}$
- e) $\frac{4}{3}$