

Study/Summary p. 62-63

Review Q's p. 64-66 *

- Solving Equation
- Ratio
- converting units
- SA/vol

- 3, 6, 8, 9
- 10.
- 6a.

3. $d = 9\text{ m}$ $r = 4.5\text{ m}$
 $h = 1.6\text{ m}$



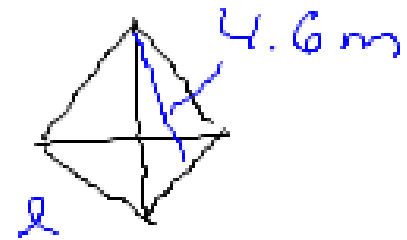
$$V = \pi r^2 \times h = \pi (4.5)^2 \times 1.6$$

$$V = 101.7876 \dots \text{ m}^3 \times \frac{1000 \text{ L}}{1 \text{ m}^3} = 101787 \dots \text{ L}$$

$$1 \text{ m}^3 = 1000 \text{ L}$$

102000 L

$$6. SA = 48.9 \text{ m}^2$$



$$SA = 4 \left(\frac{l h}{2} \right)$$

$$48.9 = 2(l)(4.6)$$

$$\frac{48.9}{9.2} = \frac{9.2 l}{9.2}$$

$$l = 5.3 \text{ m}$$



$$LA = 198.6 \text{ cm}^2$$

- ① solve for s
- ② solve for h.

$$d = 10.2 \text{ cm}$$

$$r = 5.1 \text{ cm}$$

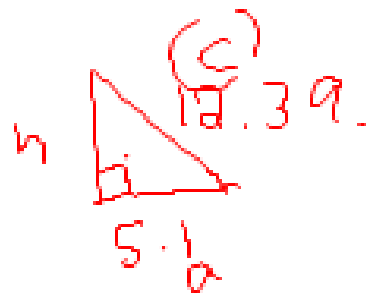
$$LA = \pi r s$$

$$\frac{198.6}{16.022} = \frac{16.022 x}{16.022}$$

$$x = s = 12.39 \text{ cm}$$

$$SA = \pi r^2 + \pi r s$$

$$5.1\pi = 16.022$$



$$c^2 = a^2 + h^2$$

$$c^2 - a^2 = h^2$$

$$(12.39)^2 - (5.1)^2 = h^2$$

$$127.63 = h^2 \quad \sqrt{h = 11.3 \text{ cm}}$$

$$9. \quad s = ?$$

$$b = 4.5 \text{ cm}$$

$$SA = 129.5 \text{ cm}^2$$

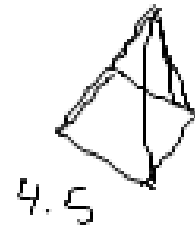
$$SA = 2bs + b^2$$

$$129.5 = 2(4.5)s + (4.5)^2$$

$$\begin{array}{r} 129.5 = 9s + 20.25 \\ -20.25 \qquad -20.25 \\ \hline \end{array}$$

$$\frac{109.25}{9} = \frac{9s}{9}$$

$$s = 12.1 \text{ cm}$$



p. 60
6a.

$$SA = \cancel{2\pi r^2} + 2\pi rh$$

$$\text{curved SA} = 219 \text{ in}^2 = 2\pi rh$$

$$h = 12 \text{ in}$$

$$d = ?$$

① radius

$$\textcircled{2} d = 2r$$

$$219 = 2\pi r(12)$$

$$219 = 24\pi r$$

$$\frac{219}{75.3982} = \frac{(75.3982 \dots)r}{75.3982}$$

$$2.9045 = r$$

$$d = 5.8 \text{ in}$$

area: units²

5.6912 ft

volume: units³

length: units

to the nearest ft. : 6 ft

to the nearest tenth : 5.7 ft

to the nearest hundredth : 5.69 ft

thousandth: 5.691 ft



• d) Volume = 6612 cm^3

$\frac{1}{3}$ Volume : Fuel storage

$\frac{1}{3}(6612) = 2204 \text{ cm}^3$

10. a) right square prism with a
right square pyramid removed.

$$V = V_{\text{prism}} - V_{\text{rsp}}$$

$$V_{\text{prism}} = l \cdot w \cdot h = (10)(10)(15) = 1500 \text{ cm}^3$$

$$V_{\text{rsp}} = \frac{l \cdot w \cdot h}{3} = \frac{(10)(10)(6)}{3} = \frac{600}{3} = 200 \text{ cm}^3$$

$$V = 1500 - 200 = 1300 \text{ cm}^3$$