

Ch 9

16

$$\textcircled{1} \quad 1 \text{ acre} \left( \frac{1 \text{ mile} \cdot \text{mile}}{640 \text{ acre}} \right) \left( \frac{5280 \text{ ft}}{1 \text{ mile}} \right) \left( \frac{5280 \text{ ft}}{1 \text{ mile}} \right) = \boxed{43,560 \text{ ft}^2}$$

$$\textcircled{2} \quad (10 \text{ ft}) (12 \text{ ft}) \left( \frac{1 \text{ yd}}{3 \text{ ft}} \right) \left( \frac{1 \text{ yd}}{3 \text{ ft}} \right) \left( \frac{\$25.49}{\text{yd}^2} \right) = 339.866 \approx \boxed{\$340}$$

$$\textcircled{3} \quad 21,600 \text{ min} \left( \frac{1 \text{ hour}}{60 \text{ min}} \right) \left( \frac{1 \text{ day}}{24 \text{ hour}} \right) = \boxed{15 \text{ days}}$$

$$\textcircled{4} \quad 45.6 \text{ cm} \left( \frac{1 \text{ in}}{2.54 \text{ cm}} \right) = \boxed{17.95 \text{ in}}$$

$$\textcircled{5} \quad (10 \text{ cm}) (20 \text{ cm}) (5 \text{ cm}) \left( \frac{1 \text{ in}}{2.54 \text{ cm}} \right) \left( \frac{1 \text{ in}}{2.54 \text{ cm}} \right) \left( \frac{1 \text{ in}}{2.54 \text{ cm}} \right) = 61.02 \text{ in}^3 \\ = \boxed{61 \text{ in}^3}$$

$$\textcircled{6} \quad \left( \frac{7.59 \text{ euro}}{\text{K}\$} \right) \left( \frac{1 \text{ €}}{.7965 \text{ euro}} \right) \left( \frac{1 \text{ kg}}{2.205 \text{ lb}} \right) = \boxed{\$4.32 / \text{lb}}$$

$$\textcircled{7} \quad \frac{105^\circ \text{F} - 32}{1.8} = 40.6 \text{ C}$$

$$\textcircled{8} \quad 1730 \text{ mile} \left( \frac{1 \text{ gallon}}{27 \text{ mile}} \right) \left( \frac{\$3.29}{\text{gallon}} \right) = \boxed{\$210.80}$$

$$\textcircled{9} \quad \left( \frac{80 \text{ km}}{\text{hour}} \right) \left( \frac{.6214 \text{ mi}}{1 \text{ km}} \right) = \boxed{49.7 \text{ mph}}$$

$$\textcircled{10} \quad (35 \text{ ft}) (15 \text{ ft}) (1 \text{ ft}) \left( \frac{1 \text{ yd}}{3 \text{ ft}} \right) \left( \frac{1 \text{ yd}}{3 \text{ ft}} \right) \left( \frac{1 \text{ yd}}{3 \text{ ft}} \right) = \boxed{19.4 \text{ yd}^3}$$

$$(11) \quad 21.52 \text{ m} \left( \frac{1.094 \text{ yd}}{1 \text{ m}} \right) \left( \frac{36 \text{ in}}{1 \text{ yd}} \right) = \boxed{851.48 \text{ in}}$$

$$16 \text{ lb} \left( \frac{1 \text{ kg}}{2.205 \text{ lb}} \right) = \boxed{7.26 \text{ kg}}$$

(17)

$$(12) \quad 8 \text{ yd} \left( \frac{.9144 \text{ m}}{1 \text{ yd}} \right) \left( \frac{100 \text{ cm}}{1 \text{ m}} \right) = \boxed{731.52 \text{ cm}}$$

$$(13) \quad (240 \text{ in})(120 \text{ in}) \left( \frac{1 \text{ ft}}{12 \text{ in}} \right) \left( \frac{1 \text{ ft}}{12 \text{ in}} \right) \left( \frac{\$1.90}{\text{ft}^2} \right) = \boxed{\$380}$$

$$(14) \quad 3500 \text{ lb} \left( \frac{1 \text{ ton}}{2000 \text{ lb}} \right) = \boxed{1.75 \text{ ton}}$$

$$(15) \quad 20 \text{ gallon} \left( \frac{4 \text{ qt}}{1 \text{ gal}} \right) \left( \frac{2 \text{ pints}}{1 \text{ qt}} \right) = \boxed{160 \text{ pints}}$$

$$(16) \quad 7000 \text{ Mill. grams} \rightarrow \text{grams} \quad 7000000 = \boxed{7,000,000 \text{ g}}$$

$$(17) \quad \left( \frac{16 \text{ miles}}{\text{hour}} \right) \left( \frac{5280 \text{ ft}}{1 \text{ mile}} \right) \left( \frac{1 \text{ hour}}{60 \text{ min}} \right) \left( \frac{1 \text{ min}}{60 \text{ sec}} \right) = \boxed{23.47 \text{ ft/sec}}$$

$$(18) \quad 325 \text{ K} \rightarrow \text{C} \quad 325 - 273.15 = \boxed{51.85 \text{ C}}$$

$$(19) \quad 45^\circ \text{C} \rightarrow \text{F} \quad 1.8(45) + 32 = \boxed{113^\circ \text{F}}$$

