

1. A football field, from end zone to end zone, is 120 yards. How many meters is this?

$$120 \text{ yards} \times \frac{0.9144 \text{ m}}{1 \text{ yard}} = 109.728 = 110 \text{ m}$$

2. The current value of gold is \$1703 per troy ounce. Find the value of 48.5 g of gold.

$$\frac{\$1703}{\text{troy ounce}} \times \frac{1 \text{ troy ounce}}{31.103 \text{ g}} \times \frac{48.5 \text{ g}}{1} = \$2655.55$$

3. A swimming pool is filled with 125 744 L of water. How many quarts is this?

$$\frac{125 \ 744 \text{ L}}{1} \times \frac{1 \text{ gal}}{3.785 \text{ L}} \times \frac{4 \text{ qt}}{1 \text{ gal}} = 132887 \text{ qt}$$

4. The car you drive can yield an efficiency of 32.5 miles per gallon of gasoline. What is this mileage in kilometers per liter?

$$\frac{32.5 \text{ miles}}{\text{gal}} \times \frac{1 \text{ gal}}{3.785 \text{ L}} \times \frac{1.609 \text{ km}}{1 \text{ mile}} = 13.8 \text{ km/L}$$

5. Based on the car mentioned above, what would be cost to drive 25 365 meters to work if gas costs \$0.97 per quart?

$$\frac{\$0.97}{\text{qt}} \times \frac{4 \text{ qt}}{1 \text{ gal}} \times \frac{1 \text{ gal}}{3.785 \text{ L}} \times \frac{1 \text{ L}}{13.8} \times \frac{1 \text{ km}}{1000 \text{ m}} \times 25 \ 365 \text{ m} =$$

\$1.88