1. A runner runs for a distance of 350 yards and then runs for an additional 200 meters. What is the total distance covered by the runner in meters?

2. A can of Schweppes Ginger Ale contains a volume of 12 fluid ounces or 355 mL. Using this information, determine the conversion factor between mL and fluid ounces. Be sure to reduce the conversion factor.

3. The "Farmhand Cut" of prime rib at Farmer Browns Steak House weighs in at 20 ounces, of which 6.0 ounces is good old Nebraska beef fat. A person on a 2400 calorie per day diet should not consume more than 800 calories from fat. If fat contains 9.0 calories per gram, is this steak within the 800 calorie limit?
4. In a land far away, long, long ago, the king sent to the royal goldsmith a five pound ingot of pure gold. "From this gold", commanded the king, "fashion for me a crown". When the crown was presented to the king, he wondered whether the crown was truly pure gold or if the greedy goldsmith had cheated him by replacing part of the gold with copper. The king asked the court chemist to determine, without damaging the crown, whether it did indeed consist of pure gold. The chemist, being a clever soul (aren’t they all), weighed the crown and found that it did, in fact, weigh precisely five pounds. The chemist then proceeded to immerse the crown in a flask of water. The flask, which initially contained 1000 mL of water, now appeared to contain 1170 mL of water. Knowing that the density of pure gold is 19.3 g/mL, what did the chemist tell the king?

5. Every six hours, a patient requires a 50 mg dose of a drug for each kilogram of body weight. If the patient weighs 115 lb, how much of the drug will be required for each dose? If the drug is administered as an I.V. solution containing 1.3 mg of drug per mL of solution, how many mL will be required each day?