## Chapter Two: Math Practice

*NOTE: Make sure you know the following conversions: Kilo= 1000/1, Deci=1/10 , Centi=1/100, Mili=1/1000 ; 1 inch=2.54 cm; 12 in = 1 ft; 3 ft = 1 yd

Conversions

1. Perform each conversion
    a. 3.55 kg to grams

    b. 8944 in to meters

    c. 0.0187 L to milliliters

    d. 4598 mg to kilograms

    e. 825 yd to kilometers

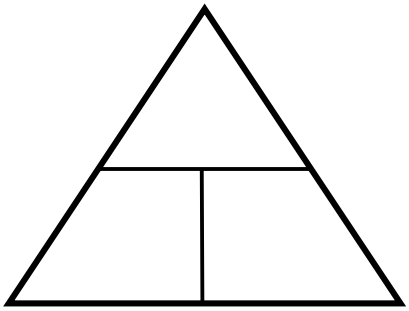
2. The speed limit on many U.S. highways is 65 mi./hr. Convert this speed into km/day.

3. A prescription medication requires 7.55 mg per kg of body weight. Convert this quantity to the number of grams required per pound of body weight and determine the correct does (in g) for a 175-lb patient.

4. A house has an area of 215 $m^2$. What is its area in $km^2$? What about $cm^2$?

Density

1. Label the density equation. Write out the possible equations.



1. Density =

2. Mass =

3. Volume =

2. The gasoline in an automobile gas tank has a mass of 60.0 kg and a density of 0.752 g/ $cm^3$. What is its volume in $cm^3$.

3. A steel cylinder has a volume of 246 $cm^3$ and a density of 7.93 $g/cm^3$. What is its mass in kilograms?

4. Carbon dioxide gas has a density of 1.96 g/L at room temperature. How many grams are in 612.0 mL sample of $CO_2$?