1. Make the following conversions. (You must show all unit factors to receive credit!!!)

a.   77 kilograms into centigrams.

b. 34.6 square inches into square millimeters.

c. 50.0 kilometers per hour into meters per second.

d. 4.6×10^5 nanograms(ng) into kilograms(kg).

e.   50000 cm to km

f.   0.020 meters per minute (m/min) into inches per second (in/s).

g.   450 micrograms per minute (µg/min) to milligrams per hour (mg/hr)

h. 0.110 ft^2 into square inches.

i.   3300 cubic centimeters into cubic feet.

j.   144 nanograms per second (ng/s) into centigrams per minute (cg/min)

k. 4.0 minutes to milliseconds.

l. A patient is prescribed 180. mg / day of a drug. Convert this into grams per week.

m. 2000 cm^3 into cubic meters.

Unit Conversion Mini-Lab!

Station #1 Find the length of the pencil in <u>centimeters,</u> and then convert the length to <u>miles</u>.

_____ cm

Station #2
a. Find the <u>volume</u> of the liquid in mL or cm^3 _____mL or cm^3

b. The <u>mass</u> of liquid in the grad cylinder is 9.58 g
Calculate the <u>density</u> of the liquid in g/cm^3:

c. Convert the density from g/cm^3 to pounds per cubic foot. (lbs/ft^3).

Station #3
Find the volume of the liquid in the beaker in <u>milliliters</u>, and convert the volume to <u>gallons</u>.
(1 gallon = 3.7854 L)

_____ mL

Station #4
a. Find the length and width of the blue paper, in centimeters. length_____cm   width____cm
b. Calculate the area of the paper, in <u>square centimeters</u>:

c. Convert the area from square centimeters to <u>square feet</u>.

Station #5
Find the mass of the paper clip in <u>grams</u>, and then convert it to <u>ounces</u>.
(1 pound = 16 oz (exactly))

_____ g

Station #6
Find the maximum amount of time you can hold your breath in <u>seconds.</u>
(report the time to the nearest 1 second), and then convert that time to <u>days</u>.

_____ s