Module 7 Lesson 2

- I will be able to convert measurements within a measurement system
- I will be able to convert measurements between measurement systems

1. Get out your homework from yesterday some of them are in the basket
2. Tape in the notes that are on the front table
3. Complete the problem using proportions if you get it correct and use proportions you will get a smelly sticker

$$\frac{1 yd}{36 in} = \frac{x}{432 in}$$

432 in = _____ yd

$432 \times 1 =$

$432 \div 36 =$

$\boxed{12 yd}$

1) 4qt
2) 3mi
3) 4c
4) 120in
5) 4qt
6) 40 oz
7) 128 oz
8) 28qt
9) 5pt
10) 16oz

A

1) $\dfrac{1qt}{4c} = \dfrac{x\,qt}{16c}$

$16 \times 1 = 16 \div 4 = 4$

$\boxed{4\,qt}$

2) $\dfrac{1mi}{1760yd} = \dfrac{x\,mi}{5280yd}$

$1 \times 5280 = 5280$

$5280 \div 1760 =$

$\boxed{3mi}$

Metric System
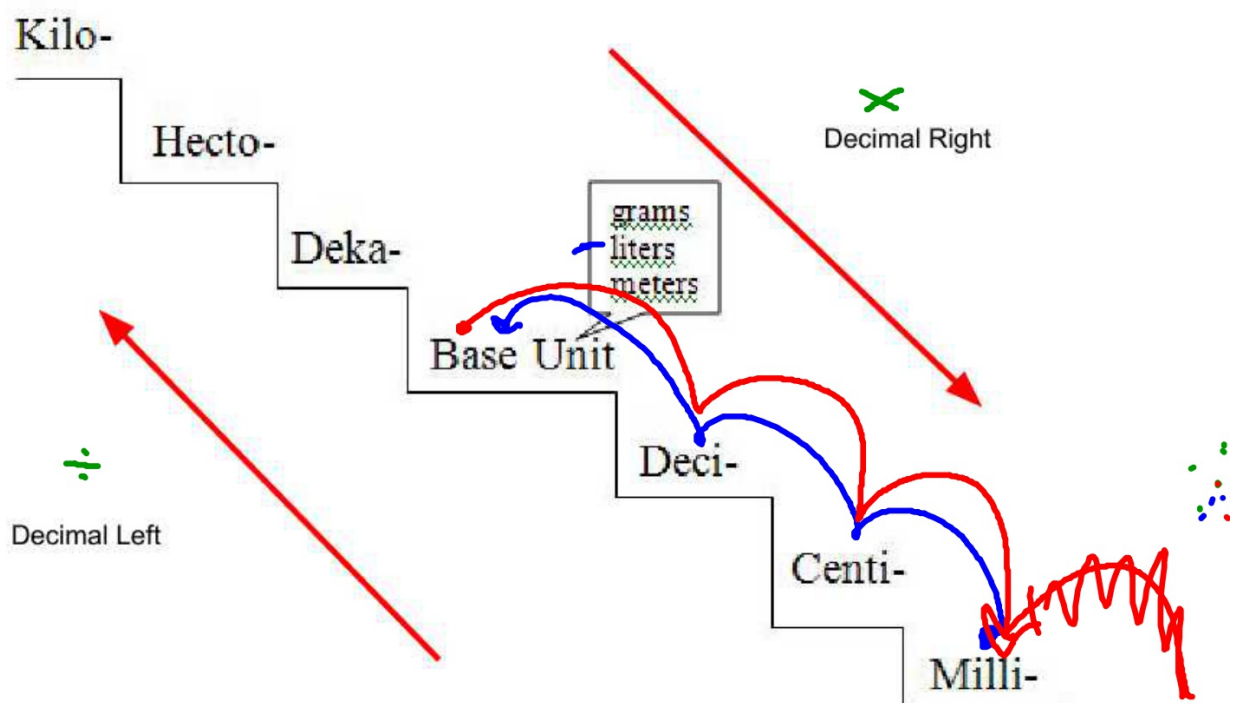
Most common system of measurement

Units of Measurement- kilometers, meters, grams

kg, liter, cm, mL

Types of Measurement

Metric Measurements		
Length	**Mass**	**Capacity**
1 kilometer = 1,000 meters 1 meter = 100 centimeters 1 centimeter = 10 millimeters	1 kilogram = 1,000 grams 1 gram = 1,000 milligrams	1 liter = 1,000 milliliters

Based on Powers of Ten

Kilo-

Hecto-

Deka-

grams
liters
meters

Base Unit

Deci-

Centi-

Milli-

Decimal Right

Decimal Left

Practice

Steps:

1. Identify the conversion rate that is needed to solve the problem.
2. Set up the proportion- 2 equal ratios
3. Solve the problem by cross multiplying and dividing by the left over number.

100 mg= **.1** g	$100 \div 10^3$ **100,** Proportion
1 L= **1000** mL	**1,000**
160 cm= **1600** mm	**160.0**
14 km= **14000** m	**14**
109 g= **.109** kg	$109 \div 10^3$ $109 \div 1000$ **109,**
250 m= **.25** km	$250 \div 1000$ **250,**