Metric Conversions & Dimensional Analysis

Name: _____

Part I: ALL UNITS (Non-Metric)! Perform the following conversions by showing the *DIMENSIONAL ANALYSIS*. Show units in answer!

Conversion Factors:

1 mL = 1 cm^3	1 cal = 4.184 Joules	1 mol = 6.02 x 10^{23} atoms	1 hr = 3600 sec
1 mol = 22.4 L	1 atm = 101.3 kPa = 760 mmHg	1 hr = 60 min	1 min = 60 sec

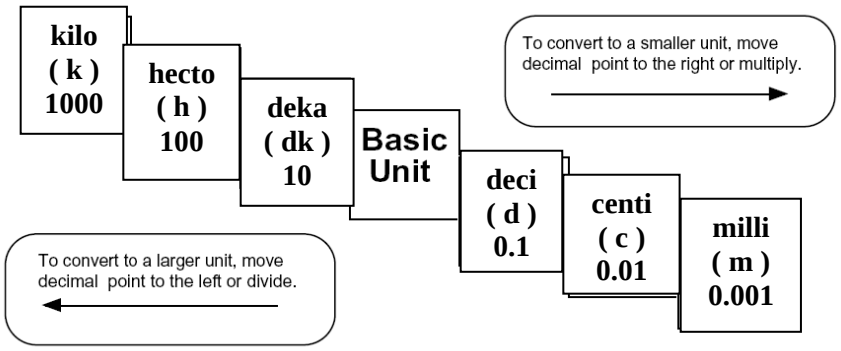
1) 850. Joules = ? cal → _____

2) 12.0 cm^3 = ? mL → _____

3) 4.20 atm = ? kPa → _____

4) 800. mmHg = ? atm → _____

Part II: METRIC SYSTEM! Perform the following conversions by showing the *DIMENSIONAL ANALYSIS*. Show units in answer!



5) 35.0 hm = ? m → _____

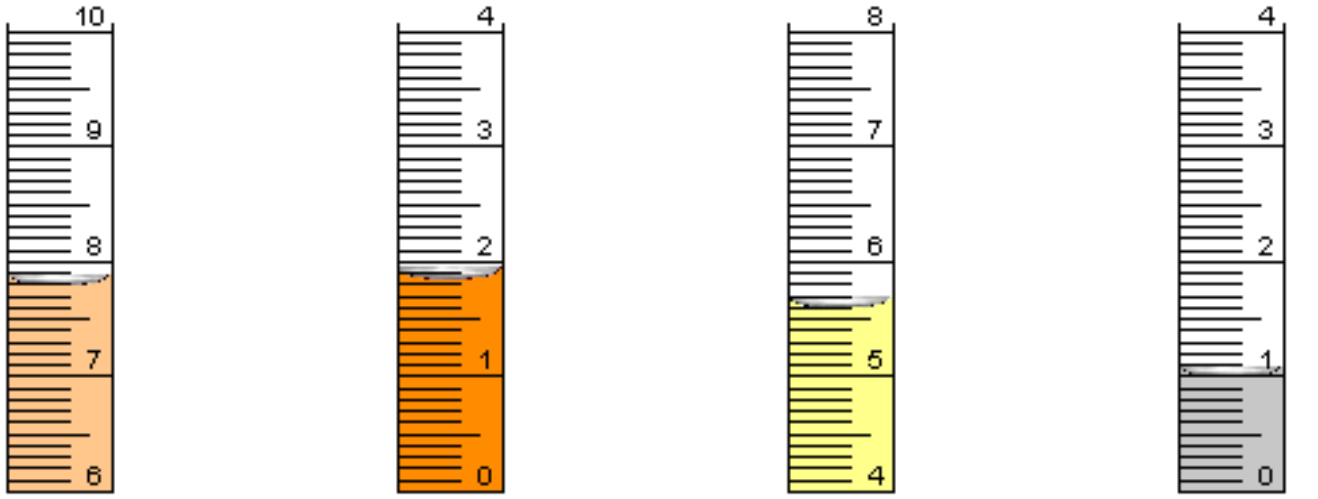
6) 180. g = ? cg → _____

7) 2.50 km = ? dm → _____

8) 964 mL = ? hL → _____

<u>Part III: Record the following measurements</u> - Be sure to include proper *<u>UNITS</u>* for each measurement.

What is the reading in milliliters for each graduated cylinder?



How many Centimeters ?