**Quick Review from 6/9/14**

1. Identify each of the following activities in the scientific method as an observation (O), a hypothesis (H), an experiment (E), or a theory (T)
   1. Explains why nature behaves the way it does. \_\_\_\_\_\_
   2. Collect data. \_\_\_\_\_\_
2. Solve the following problems, stating answers to the proper number of significant figures
   1. 12.62 + 1.5 + 0.25 =
   2. 10.4 + 3.75(1.5 x 104) =
3. Write the name or symbol for the following elements
   1. Chromium
   2. B
4. (4 points) Write the following measurements in scientific notation with 4 significant figures.
   1. 581962846 g
   2. 0.0000352329 mL
5. What is the log of 6.49 x 105 (with proper number of sig figs)
6. Round the following numbers to 3 significant figures and write them in scientific notation.
   1. 3758298950 km
   2. 0.000320241713 sec
7. Classify each of the following as a homogenous mixture, heterogeneous mixture, element or compound
   1. Copper metal, Cu \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Soft Drink \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Sugar, C12H22O11 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Ham Sandwich \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Baking Soda, NaHCO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Identify each of the following as properties of a solid, liquid or gas
   1. This substance has a definite volume and shape. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. The particles in the substance have negligible attractive forces. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Write the name for each of the following ions (include the Roman numeral when necessary):
   1. Zn2+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. N3- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Nitride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Na+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Cl- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   6. Cu2+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Identify each of the following transformations as a chemical or physical change.
2. Silver tarnishing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Cutting the grass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. A nail rusting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Water boiling \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. A button falling off a shirt \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_