**Practice Test #5: Topics Covalent Compounds and Moles**

This is a practice test that I want you to work on in class today. Use one color of ink to write the answers for the work you do in class today and another color to write the answers for the work you do overnight. This is so that you can track what you know now, vs. what you need to learn.

On Tuesday, we will grade this like a regular test so you can see how you’d do. Note: The point values given after each question here are present so you understand what the value of each question is likely to be on the exam. As will all assignments of this type, you will be graded for completion.

1) Describe how covalent bonding is different than ionic bonding. (4 pt)

2) Why do covalent compounds usually have lower melting and boiling temperatures than ionic compounds? (3 pt)

3) Why do I say that ionic compounds are like LEGO bricks while covalent compounds behave more like Tylenol capsules? (4 pt)

4) Define the following terms (2 pt each):

* polarity
* molecule
* mole
* molar mass

5) Why do polar covalent molecules have higher melting and boiling points than nonpolar covalent molecules? (4 pt)

6) What type of chemical bond does each of the following? Possible answers are metallic, covalent, polar covalent, and ionic. (1 pt each)

a) Allows the solid substance to conduct electricity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Increases brittleness of covalent compounds: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Conducts electricity only when melted or dissolved in water: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) a) What is the molar mass of AgF? (1 pt)

b) How many grams are in 3.0 moles of AgF? (4 pt)

8) a) What is the molar mass of CuOH? (1 pt)

b) How many moles are in 5.0 grams of CuOH? (4 pt)

9) a) What is the molar mass of Mg(OH)2? (1 pt)

b) How much does 50 grams of Mg(OH)2 weigh? (4 pt)