**Naming and Writing Formulas of Ionic Compounds-WS #3**

**Part 1:** Fill in the blanks.

1. Ionic bonds are between a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. In an ionic bond, electrons are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from one atom to another.
3. When ions bond, the overall charge of the compound is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. In a binary ionic compound, the second element’s name ending must be changed to \_\_\_\_\_\_\_\_\_.
5. The general rule is: the difference in electronegativity is ~\_\_\_\_\_\_\_ or > for ionic compounds.

**Part 2:** Predict the formula of the compound that will result.

1. Na and Cl 6. V4+ and O
2. Fe2+ and O 7. V3+ and O
3. Co2+ and S 8. Ca and S
4. Mg and F 9. Li and As
5. Fe3+ and O 10. Mg and As

**Part 3:** Write the formula for each compound below.

1. Sodium Iodide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Aluminum Oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Manganese (II) Sulfide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Copper (I) Bromide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Sodium Chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Beryllium Chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Calcium Sulfide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Aluminum Fluoride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Iron (II) Oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. Copper (III) Chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 4:** For the following, tell if it is going to be an ionic compound. If so, write the formula. If it is NOT an ionic compound, leave it blank. *\*Use e-negativity chart*

1. Cl and F 4. Fe3+ and Mg
2. Mg and F 5. Al and S
3. Na and S 6. O and Br

**Part 5:** Determine the oxidation number of each element in the following compounds.

1. Compound: NH3 N: \_\_\_\_\_\_\_\_ H: \_\_\_\_\_\_\_\_
2. Compound: H2O H: \_\_\_\_\_\_\_\_ O: \_\_\_\_\_\_\_\_
3. Compound: CO2 C: \_\_\_\_\_\_\_\_ O: \_\_\_\_\_\_\_\_
4. Compound: FeS Fe: \_\_\_\_\_\_\_\_ S: \_\_\_\_\_\_\_\_
5. Compound: ZnCl2 Zn: \_\_\_\_\_\_\_\_ Cl: \_\_\_\_\_\_\_\_