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| **Date** | **Topic** | **Homework** | | |
| **CB** | **PA** | **H** |
| M – Jan 5 | Ion Review | 1-7; for 7 (H, N, C, N, O, F, and Ne) | 1-7 | 1-7 |
| T – Jan 7 | Ionic Compounds | 8-10 | 8-10 | 8-10 |
| W – Jan 8 | Ionic Bonding and Formula Determination | 11a-c; 12 | 11-12 | 11-12 |
| Th – Jan 9 | Ionic Lewis Dot Structures | 13 | 13 | 13 |
| F – Jan 10 | Naming Ionic Compounds | 14 | 14 | 14 |

**\*Complete the following problems on a separate sheet of paper in your chemistry notebook.**

1. Explain why noble gases tend not to react.
2. Define anion and cation. How are they different from each other?
3. What type of ion is formed from atoms with high electronegativity and high ionization energy? Explain.
4. What type of ion is formed from atoms with low electronegativity and low ionization energy? Explain.
5. How many valence electrons are in each *neutral* atom?
   1. potassium c. magnesium
   2. carbon d. oxygen
6. How many electrons will each element gain or lose in forming an ion?
   1. calcium (Ca) c. aluminum (Al)
   2. fluorine (F) d. oxygen (O)
7. For the following atoms: H, B, C, N, O, F, Ne, Si, P, S, Cl, Xe
   1. Determine the number of valence electrons for the neutral atom
   2. Draw the Lewis Dot Structure for the neutral atom
   3. Draw the Lewis Dot Structure for the ion
8. Define an ionic bond.
9. Explain why ionic compounds are electrically neutral.
10. Name three properties of an ionic compound.
11. Write the correct chemical formula for the compounds formed from each pair of ions.
    1. K+, S- c. Ca2+, O2-
    2. Na+, O2- d. Al3+, O2-
12. Which of the following pairs of atoms would you expect to combine chemically to form an ionic compound? **Determine the formula for the pairs that form ionic compounds.**
    1. Li and S d. F and Cl
    2. O and S e. I and K
    3. Al and O f. H and N
13. Determine the formula and draw the Lewis dot structures for the ionic compounds created by the atoms below.
    1. Calcium and Fluorine
    2. Aluminum and Bromine
    3. Lithium and Oxygen
    4. Aluminum and Sulfur
14. Fill in the following table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Ions in Compound**  **(Include their charges!)** | | **Ionic Compound Chemical Formula** | **Ionic Compound Chemical Name** |
| **Cation** | **Anion** |
| **Example** | Ca2+ | O2- | CaO | Calcium Oxide |
| **A.** | K+ | Br-1 |  |  |
| **B.** |  |  | Na2S |  |
| **C.** |  |  |  | Aluminum Iodide |