**Quiz 5A**

# Directions: Answer each of the following questions. Be sure to use complete sentences where appropriate. For full credit be sure to show all of your work. Where appropriate answers should be boxed for clarity, written to the correct number of significant figures, and, include the proper units.

1. Arrange the following elements in order of increasing metallic character: nitrogen, antimony (Z = 51), arsenic (Z = 33), and phosphorus (3 points).

N < P < Ar < Sb

1. Chose the element with the larger atoms from each pair (3 points):
   1. Al or In
   2. P or Pb
   3. C or F
2. What are the three types of bonds (3 points)?

The three types of bonds are ionic, metallic, and covalent bonds.

1. What is the goal of this week’s experiment (1 point)?

The goal of the Molecular Models experiment is to learn how to draw molecules and about their shapes.

1. Complete the following table (10 points):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Compound Name | Metal of known or variable charge? | Cation | Anion | Compound Formula |
|  | Magnesium phosphide | Known | Mg2+ | P3- | Mg3P2 |
|  | Sodium nitrate | Known | Na+ | NO3- | NaNO3 |
|  | Iron(II) oxide | Variable | Fe2+ | O2- | FeO |