**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. 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 |

1. Answer the following questions about the Lewis structure (5 points): 
   1. What is the formula of the compound? \_\_\_\_NI3
   2. What is the name of the compound? \_\_\_nitrogen triiodide
   3. How many bonding clouds on the central atom? \_\_\_3
   4. How many nonbonding clouds on the central atom? \_\_\_1
   5. Is the molecular polar or nonpolar? \_\_polar
2. Answer the following questions about the Lewis structure (5 points): 
   1. What is the formula of the compound? \_\_\_HF
   2. What is the name of the compound? \_\_hydrogen fluoride
   3. What is the electron pair geometry? \_\_\_linear
   4. What is the bond angle? \_\_\_180°
   5. Is the molecular polar or nonpolar? \_\_\_polar