**Name: Period: Seat#:**

**Worksheet #8**

**Answer the following questions:**

|  |  |
| --- | --- |
| 1. What are the common exceptions to the octet rule?
 | 1. Which compound has the most ionic character? Explain why. (Think about what periodic trend causes a compound to be ionic in the first place.) LiCl vs. LiF
 |
| 1. What kind of bond is likely to form if the atoms have very similar electronegativity differences?
 | 1. What type of bond is formed when electrons are delocalized and move throughout the substance?
 | 1. What is the formula for Mercury (I) Chloride?
 |
| 1. If an unknown compound XY has an electronegativity difference of 1.0, what type of bond is it?
 | 1. Using the information in Question #6 and the information below, what must the unknown compound XY be? N = 3.0; O = 3.4C = 2.5; Cl = 3.2; H =2.2
 | 1. Do atoms form bonds because they are moving towards higher or lower potential energy?
 |

**Provide the information asked for:**

|  |  |
| --- | --- |
| 1. Sodium Oxide

*Type of bond:**Formula:**Lewis Structure:* | 1. Iodine gas

*Type of bond:**Formula:**Lewis Structure:* |
| 1. Hydrogen cyanide

*Type of bond:**Formula:**Lewis Structure:* | 1. Iodine trifluoride

*Type of bond:**Formula:**Lewis Structure:* |
| 1. NH4+

*Type of bond:**Name:**Lewis Structure:* | 1. PCl5

*Type of bond:**Name:**Lewis Structure:* |
| 1. C2H2

*Type of bond:**Name:**Lewis Structure:* | 1. XeF4

*Type of bond:**Name:**Lewis Structure:* |
| 1. CH3OCH3

*Type of bond:**Name: Dimethyl ether**Lewis Structure:* | 1. CH3COCH3

*Type of bond:**Name: Acetone**Lewis Structure:* |
| 1. ClF2+

*Type of bond:**Name:**Lewis Structure:* | 1. CH3Cl

*Type of bond:**Name: Methyl chloride**Lewis Structure:* |