

# Chapter 09 WS

Name: \_\_\_\_\_

Names/Formulas of Molecular Compounds Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Directions

Name the Following Molecular Compounds

- |                      |                     |
|----------------------|---------------------|
| 1) $O_2$ _____       | 9) $Si_2Br_6$ _____ |
| 2) $H_2$ _____       | 10) $SCl_4$ _____   |
| 3) $Cl_2$ _____      | 11) $PCl_5$ _____   |
| 4) $F_2$ _____       | 12) $P_7I_9$ _____  |
| 5) $C_8H_{10}$ _____ | 13) $N_2O_4$ _____  |
| 6) $SF_6$ _____      | 14) $Cl_2O_7$ _____ |
| 7) $P_4S_5$ _____    | 15) $C_3O_4$ _____  |
| 8) $SeF_6$ _____     | 16) $BF_3$ _____    |

## Directions

Write the formula for the following Molecular Compounds

- |                                        |                                        |
|----------------------------------------|----------------------------------------|
| 1) Antimony tribromide _____           | 8) Methane (carbon tetrahydride) _____ |
| 2) Hexaboron trisilicide _____         | 9) Nonasulfur heptabromide _____       |
| 3) Tetrachlorine dioxide _____         | 10) Carbon tetrachloride _____         |
| 4) Dinitrogen Trioxide _____           | 11) Trinitrogen Pentoxide _____        |
| 5) Octasilicon tetracarbide _____      | 12) Diboron pentasilicide _____        |
| 6) Ammonia (nitrogen trihydride) _____ | 13) Carbon monoxide _____              |
| 7) Phosphorous triiodide _____         | 14) Carbon dioxide _____               |

**Directions**

Fill in the blanks.

- 1) A base is a compound that contains a \_\_\_\_\_ anion. This \_\_\_\_\_ anion is usually ionically bound to a metal cation and is named the exact same way as all ionic compounds with the \_\_\_\_\_ first, followed by the \_\_\_\_\_.
- 2) An acid is a compound that contains a \_\_\_\_\_ cation when placed in water. There are three basic types of acids. Acids can be a combination of the \_\_\_\_\_ cation with an anion that has a name that ends in either \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_. The name of the acid depends on the anion.

**Directions**

Write the formula for the following acids and bases.

- |                      |       |                             |       |
|----------------------|-------|-----------------------------|-------|
| 3) Hydrochloric acid | _____ | 8) Nitrous acid             | _____ |
| 4) Hydroiodic acid   | _____ | 9) Chlorous acid            | _____ |
| 5) Sulfuric acid     | _____ | 10) Sodium hydroxide        | _____ |
| 6) Nitric acid       | _____ | 11) Calcium hydroxide       | _____ |
| 7) Acetic acid       | _____ | 12) Vanadium (II) hydroxide | _____ |

**Directions**

Write the name for the following acids and bases.

- |                                     |       |                                    |       |
|-------------------------------------|-------|------------------------------------|-------|
| 13) HBr                             | _____ | 18) HNO <sub>2</sub>               | _____ |
| 14) HF                              | _____ | 19) H <sub>2</sub> SO <sub>3</sub> | _____ |
| 15) H <sub>3</sub> PO <sub>4</sub>  | _____ | 20) KOH                            | _____ |
| 16) H <sub>2</sub> CrO <sub>4</sub> | _____ | 21) Pb(OH) <sub>4</sub>            | _____ |
| 17) H <sub>2</sub> CO <sub>3</sub>  | _____ | 22) Cr(OH) <sub>3</sub>            | _____ |