

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

## Chemistry Honors Practice: Naming Compounds

1. Name these ionic binary compounds. (All cations have a single type of charge)

- |           |                   |           |                   |
|-----------|-------------------|-----------|-------------------|
| a.) _____ | CaCl <sub>2</sub> | e.) _____ | BaI <sub>2</sub>  |
| b.) _____ | MgO               | f.) _____ | Na <sub>3</sub> N |
| c.) _____ | K <sub>2</sub> S  | g.) _____ | CaBr <sub>2</sub> |
| d.) _____ | AgF               | h.) _____ | SrCl <sub>2</sub> |

2. Name these type II binary ionic compounds. (Cations have multiple charges, therefore all require roman numerals.)

- |           |                                |           |                                |
|-----------|--------------------------------|-----------|--------------------------------|
| a.) _____ | SnBr <sub>2</sub>              | e.) _____ | Hg <sub>2</sub> I <sub>2</sub> |
| b.) _____ | Cr <sub>2</sub> O <sub>3</sub> | f.) _____ | PbO                            |
| c.) _____ | FeCl <sub>3</sub>              | g.) _____ | PbCl <sub>4</sub>              |
| d.) _____ | HgI <sub>2</sub>               | h.) _____ | CuI                            |

3. Name these compounds that contain polyatomic ions. See Ion Sheet.

- |           |  |           |   |
|-----------|--|-----------|---|
| a.) _____ | Mg(NO <sub>3</sub> ) <sub>2</sub>                            | e.) _____ | K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>   |
| b.) _____ | Cr(CN) <sub>3</sub>  | f.) _____ | Ba <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> |
| c.) _____ | NH <sub>4</sub> C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> | g.) _____ | KClO <sub>3</sub>                               |
| d.) _____ | Na <sub>2</sub> CO <sub>3</sub>                              | h.) _____ | Pb(SO <sub>4</sub> ) <sub>2</sub>               |

4. Name these binary molecular compounds. (Use prefixes. Avoid using mono with first element)

- |           |                                |           |                               |
|-----------|--------------------------------|-----------|-------------------------------|
| a.) _____ | CBr <sub>4</sub>               | e.) _____ | N <sub>2</sub> O <sub>4</sub> |
| b.) _____ | PCl <sub>3</sub>               | f.) _____ | CO                            |
| c.) _____ | P <sub>2</sub> S <sub>5</sub>  | g.) _____ | SO <sub>3</sub>               |
| d.) _____ | P <sub>4</sub> O <sub>10</sub> | h.) _____ | SF <sub>6</sub>               |

5. Name these Hydrogen containing acids.

- |           |                   |           |   |
|-----------|-------------------|-----------|---|
| a.) _____ | HCl               | e.) _____ | H <sub>3</sub> PO <sub>4</sub>                |
| b.) _____ | HClO <sub>3</sub> | f.) _____ | H <sub>3</sub> PO <sub>3</sub>                |
| c.) _____ | HClO <sub>2</sub> | g.) _____ | HIO <sub>3</sub>                              |
| d.) _____ | H <sub>2</sub> S  | h.) _____ | HC <sub>2</sub> H <sub>3</sub> O <sub>2</sub> |