

## Covalent Compounds Worksheet

Write the formulas for the following covalent compounds:

- 1) antimony tribromide \_\_\_\_\_
- 2) ~~hexabromide~~ \_\_\_\_\_
- 3) chlorine dioxide \_\_\_\_\_
- 4) ~~hydrogen iodide~~ \_\_\_\_\_
- 5) iodine pentafluoride \_\_\_\_\_
- 6) dinitrogen trioxide \_\_\_\_\_
- 7) ammonia \_\_\_\_\_
- 8) phosphorus triiodide \_\_\_\_\_

Write the names for the following covalent compounds:

- 9)  $P_4S_5$  \_\_\_\_\_
- 10) ~~\_\_\_\_\_~~ \_\_\_\_\_
- 11)  $SeF_6$  \_\_\_\_\_
- 12)  $Si_2Br_6$  \_\_\_\_\_
- 13)  $SCl_4$  \_\_\_\_\_
- 14)  $CH_4$  \_\_\_\_\_
- 15)  $B_2Si$  \_\_\_\_\_
- 16)  $NF_3$  \_\_\_\_\_

Prefixes and their meanings  
mono = 1, di = 2, tri = 3, tetra = 4, penta = 5, hexa = 6, hepta = 7, octo = 8, nona = 9, deca = 10

A. Write the correct chemical formula for these compounds. The prefix in front of the element indicates how many of that atom will be in the compound. DO NOT CONSIDER CHARGES!

- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. carbon monoxide _____         | 11. boron trichloride _____    |
| 2. carbon tetrachloride _____    | 12. carbon tetraiodide _____   |
| 3. carbon dioxide _____          | 13. boron trichloride _____    |
| 4. sulphur dioxide _____         | 14. carbon tetrafluoride _____ |
| 5. sulphur trioxide _____        | 15. nitrogen tribromide _____  |
| 6. diphosphorous trioxide _____  | 16. sulfur trioxide _____      |
| 7. carbon tetrafluoride _____    | 17. nitrogen trifluoride _____ |
| 8. diphosphorous pentoxide _____ | 18. sulphur dichloride _____   |
| 9. dihydrogen dioxide _____      | 19. nitrogen dioxide _____     |
| 10. selenium trioxide _____      | 20. dinitrogen tetroxide _____ |

B. Name the following covalent compounds.

- |                  |                    |
|------------------|--------------------|
| 1. CO _____      | 6. $N_2O$ _____    |
| 2. $SF_6$ _____  | 7. NO _____        |
| 3. $PCl_3$ _____ | 8. $NO_2$ _____    |
| 4. $CO_2$ _____  | 9. $SO_2$ _____    |
| 5. ICl _____     | 10. $N_2O_4$ _____ |

## NAMING MOLECULAR COMPOUNDS

Name \_\_\_\_\_

Name the following covalent compounds:

1.  $\text{CO}_2$  \_\_\_\_\_
2.  $\text{CO}$  \_\_\_\_\_
3.  $\text{SO}_2$  \_\_\_\_\_
4.  $\text{SO}_3$  \_\_\_\_\_
5.  $\text{N}_2\text{O}$  \_\_\_\_\_
6.  $\text{NO}$  \_\_\_\_\_
7.  $\text{N}_2\text{O}_3$  \_\_\_\_\_
8.  $\text{NO}_2$  \_\_\_\_\_
9.  $\text{N}_2\text{O}_4$  \_\_\_\_\_
10.  $\text{N}_2\text{O}_5$  \_\_\_\_\_
11.  $\text{PCl}_3$  \_\_\_\_\_
12.  $\text{PCl}_5$  \_\_\_\_\_
13.  $\text{NH}_3$  \_\_\_\_\_
14.  $\text{SCl}_6$  \_\_\_\_\_
15.  $\text{P}_2\text{O}_5$  \_\_\_\_\_
16.  $\text{CCl}_4$  \_\_\_\_\_
17.  $\text{SiO}_2$  \_\_\_\_\_
18.  $\text{CS}_2$  \_\_\_\_\_
19.  $\text{OF}_2$  \_\_\_\_\_
20.  $\text{PBr}_3$  \_\_\_\_\_

## NAMING BINARY COMPOUNDS (COVALENT)

Name \_\_\_\_\_

Name the following compounds using the prefix method.

1.  $\text{CO}$  \_\_\_\_\_
2.  $\text{CO}_2$  \_\_\_\_\_
3.  $\text{SO}_2$  \_\_\_\_\_
4.  $\text{NO}_2$  \_\_\_\_\_
5.  $\text{N}_2\text{O}$  \_\_\_\_\_
6.  $\text{SO}_3$  \_\_\_\_\_
7.  $\text{CCl}_4$  \_\_\_\_\_
8.  $\text{NO}$  \_\_\_\_\_
9.  $\text{N}_2\text{O}_5$  \_\_\_\_\_
10.  $\text{P}_2\text{O}_5$  \_\_\_\_\_
11.  $\text{N}_2\text{O}_4$  \_\_\_\_\_
12.  $\text{CS}_2$  \_\_\_\_\_
13.  $\text{OF}_2$  \_\_\_\_\_
14.  $\text{PCl}_3$  \_\_\_\_\_
15.  $\text{PBr}_5$  \_\_\_\_\_