

## Blackline Master 5.11

# Molecular Compounds: Names and Formulas Worksheet

1. Write the formulas for the following compounds.

(a) carbon dioxide	<u>CO<sub>2</sub></u>	(k) diphosphorus trioxide	<u>P<sub>2</sub>O<sub>3</sub></u>
(b) silicon dioxide	<u>SiO<sub>2</sub></u>	(l) nitrogen monoxide	<u>NO</u>
(c) water	<u>H<sub>2</sub>O</u>	(m) chlorine dioxide	<u>ClO<sub>2</sub></u>
(d) carbon disulfide	<u>CS<sub>2</sub></u>	(n) dinitrogen oxide	<u>N<sub>2</sub>O</u>
(e) sulfur trioxide	<u>SO<sub>3</sub></u>	(o) carbon monoxide	<u>CO</u>
(f) ammonia	<u>NH<sub>3</sub></u>	(p) arsenic tribromide	<u>AsBr<sub>3</sub></u>
(g) carbon tetrachloride	<u>CCl<sub>4</sub></u>	(q) phosphorus pentabromide	<u>PBr<sub>5</sub></u>
(h) hydrogen peroxide	<u>H<sub>2</sub>O<sub>2</sub></u>	(r) dinitrogen tetroxide	<u>N<sub>2</sub>O<sub>4</sub></u>
(i) methane	<u>CH<sub>4</sub></u>	(s) silicon carbide	<u>SiC</u>
(j) ozone (trioxygen)	<u>O<sub>3</sub></u>	(t) sulfur dioxide	<u>SO<sub>2</sub></u>

2. Write the names for the following compounds.

(a) CF <sub>4</sub>	<u>carbon tetrafluoride</u>	(k) P <sub>2</sub> O <sub>5</sub>	<u>diphosphorus pentoxide</u>
(b) NH <sub>3</sub>	<u>ammonia</u>	(l) CH <sub>4</sub>	<u>methane</u>
(c) PBr <sub>3</sub>	<u>phosphorus tribromide</u>	(m) SO <sub>3</sub>	<u>sulfur trioxide</u>
(d) O <sub>3</sub>	<u>ozone</u>	(n) H <sub>2</sub> O	<u>water</u>
(e) F <sub>2</sub> (gas)	<u>fluorine gas</u>	(o) SiO <sub>2</sub>	<u>silicon dioxide</u>
(f) CS <sub>2</sub>	<u>carbon disulfide</u>	(p) PCl <sub>5</sub>	<u>phosphorus pentachloride</u>
(g) N <sub>2</sub> O <sub>4</sub>	<u>dinitrogen tetroxide</u>	(q) I <sub>2</sub> (gas)	<u>iodine gas</u>
(h) H <sub>2</sub> O <sub>2</sub>	<u>hydrogen peroxide</u>	(r) NO <sub>2</sub>	<u>nitrogen dioxide</u>
(i) CO	<u>carbon monoxide</u>	(s) SF <sub>4</sub>	<u>sulfur tetrafluoride</u>
(j) SiC	<u>silicon carbide</u>	(t) H <sub>2</sub> (gas)	<u>hydrogen gas</u>

## Naming Covalent Compounds Solutions

*Write the formulas for the following covalent compounds:*

- 1) antimony tribromide  $\text{SbBr}_3$
- 2) hexaboron silicide  $\text{B}_6\text{Si}$
- 3) chlorine dioxide  $\text{ClO}_2$
- 4) hydrogen iodide  $\text{HI}$
- 5) iodine pentafluoride  $\text{IF}_5$
- 6) dinitrogen trioxide  $\text{N}_2\text{O}_3$
- 7) ammonia  $\text{NH}_3$
- 8) phosphorus triiodide  $\text{PI}_3$

*Write the names for the following covalent compounds:*

- 9)  $\text{P}_4\text{S}_5$  tetraphosphorus pentasulfide
- 10)  $\text{O}_2$  oxygen
- 11)  $\text{SeF}_6$  selenium hexafluoride
- 12)  $\text{Si}_2\text{Br}_6$  disilicon hexafluoride ~~fluoride~~ bromide
- 13)  $\text{SCl}_4$  sulfur tetrachloride
- 14)  $\text{CH}_4$  methane
- 15)  $\text{B}_2\text{Si}$  diboron silicide
- 16)  $\text{NF}_3$  nitrogen trifluoride