Name _____ Date _____

Comprehension
Section 4.2

Use with textbook pages 193–197.

Chemical names and formulas of covalent compounds

1. What is a covalent compound?

_____

2. What type of bond is formed in a covalent compound?

_____

3. What is used in naming covalent compounds?

_____

4. Write the chemical formula for each of the following compounds.

(a) silicon dioxide _____	(i) dinitrogen pentoxide _____
(b) chlorine dioxide _____	(j) dinitrogen monoxide _____
(c) tellurium dioxide _____	(k) arsenic tetrabromide _____
(d) selenium trioxide _____	(l) arsenic pentachloride _____
(e) carbon disulphide _____	(m) disulphide pentoxide _____
(f) arsenic trichloride _____	(n) sulphur monochloride _____
(g) chlorine heptoxide _____	(o) phosphorus trichloride _____
(h) selenium difluoride _____	(p) diphosphorus pentoxide _____

Table 3.18 gives some examples of how names of molecular compounds can be written from their formulas.

TABLE 3.18 Hints for Writing Names of Molecular Compounds

Formula	Name	Hints for Writing Names
CS_2	carbon disulphide	Do not use a prefix when there is only one atom of the first element.
O_2F_2	dioxygen difluoride	Do not reduce the name to "oxygen fluoride."
CCl_4	carbon tetrachloride	Do not use a prefix when there is only one atom of the first element.
P_4O_{10}	tetraphosphorus decaoxide	Use rules 1 to 3.

Study Prep

1. Write the names of the following compounds:

   a) CO_2 _____

   b) N_2O _____

   c) PCl_3 _____

   d) PBr_5 _____

   e) SO_2 _____

   f) N_2O_4 _____

   g) P_4S_{10} _____

   h) S_2F_{10} _____

   i) NI_3 _____

   j) NO _____

2. Write the formulas of the following compounds:

   a) nitrogen tribromide _____

   b) sulphur hexafluoride _____

   c) dinitrogen tetrasulphide _____

   d) oxygen difluoride _____

   e) carbon tetraiodide _____

   f) sulphur trioxide _____

   g) phosphorus pentachloride _____

   h) diiodine hexachloride _____

   i) dichlorine monoxide _____

   j) xenon hexafluoride _____