NAMING BINARY COMPOUNDS IV

Nonmetal-nonmetal binary compounds are named using Greek prefixes to specify the number of atoms of each element in the molecule.

Rule 1 Give a **prefix** indicating the subscript on the first element, then the first **element name**, then the **prefix** indicating the subscript on the second element, then the second **element name with "ide" ending**.

Rule 2 Use no prefix for a subscript of one (1) except use "mono" in special cases, especially to avoid ambiguity or confusion.

Rule 3 Use common names for **water**, H_2O, **ammonia**, NH_3, **methane**, CH_4, etc.

Also	ethane	C_2H_6	pentane	C_5H_{12}	octane	C_8H_{18}
	propane	C_3H_8	hexane	C_6H_{14}	nonane	C_9H_{20}
	butane	C_4H_{10}	heptane	C_7H_{16}	decane	$C_{10}H_{22}$

The prefixes are:

1	mono	5	penta	9	nona
2	di	6	hexa	10	deca
3	tri	7	hepta		
4	tetra	8	octa		

Note: The "a" in a prefix before "oxide" may be dropped.

Examples: CO_2 is named **carbon dioxide**.
N_2O is named **dinitrogen oxide** or **dinitrogen monoxide**
N_2O_5 is named **dinitrogen pentoxide** or **dinitrogen pentaoxide**

You should be able to name the following compounds:

a. NF_3
b. CCl_4
c. OF_2
d. TeO_3
e. As_4Se_4
f. ClF
g. C_3H_8
h. S_3Br_2
i. P_4O_{10}
j. IF_7
k. SF_6
l. P_4S_7
m. B_2O_3
n. PCl_5
o. I_4O_9
p. Si_2I_6

Names are on the other side.

WRITING BINARY FORMULAS IV

Rule 1 Write the **symbol** for the first element then its numerical **subscript,** write the **symbo**l for the second element then its numerical **subscript**.

Rule 2 A subscript of one (1) is not written.

Rule 3 Subscripts are **not** reduced to lowest whole numbers.

Note: Formulas and names are written in the same order.

Examples: bromine trifluoride is BrF_3

dichlorine heptoxide is Cl_2O_7

You should be able to write formulas for these compounds:

a. nitrogen trifluoride
b. carbon tetrachloride
c. oxygen difluoride
d. tellurium trioxide
e. tetraarsenic tetraselenide
f. chlorine monofluoride
g. propane
h. trisulfur dibromide
i. tetraphosphorus decoxide
j. iodine heptafluoride
k. sulfur hexafluoride
l. tetraphosphorus heptasulfide
m. diboron trioxide
n. phosphorus pentachloride
o. tetraiodine nonoxide
p. disilicon hexaiodide

Answers are on the other side.