GRADE 11 UNIVERSITY PREP CHEMISTRY
NOMENCLATURE PACKAGE

Introduction:
This nomenclature package is a programmed learner. It is organized with a brief lesson and examples, followed by a chance to test your understanding. You are asked to write names and formulas for compounds and then check your answers. The answers appear below the line. Before you start to complete the answers, cover up the answers with a sheet of paper. Write your answers on a separate sheet of paper so you can use the booklet over and over again.
If you do not get the correct answers, go back and re-read the lesson and try again. If you are still having difficulty, ask your instructor.

Binary Compounds:
Binary compounds are compounds that consist of only two kinds of elements. Binary compounds can either be ionic or covalent.
Ionic compounds form between metals and non-metals and result in the formation of a crystal lattice, an alternating arrangement of positive and negative ions. The formula of an ionic compound represents the ratio of ions in the crystal. This formula is reduced to the lowest whole number ratio.
Covalent bonds link two non-metallic elements together through the sharing of electrons. Individual molecules are formed and the formula represents the actual combination of atoms in the molecule. This formula is not reduced.

Using the information above as a guide, decide whether the following are ionic (I) or covalent (C) compounds:

_____ NaF _____ CO_2 _____ H_2S _____ PbO_2

_____ HCl _____ $AlCl_3$ _____ Ba_3N_2 _____ $FeBr_3$

Check your answers. If you had difficulty, go back and re-read the paragraphs on binary compounds.

__I__ NaF __C__ CO_2 __C__ H_2S __I__ PbO_2

__C__ HCl __I__ $AlCl_3$ __I__ Ba_3N_2 __I__ $FeBr_3$

Simple Ionic Compounds:
In order to write the formula of a simple ionic compound from its name, follow these steps:

(1) Print the symbols for each element involved. The metal is always listed first, followed by the non-metal.
potassium oxide K O