1) Give the symbols for the following:

a) silver
b) oxygen
c) hydrogen
d) carbon
e) iron
f) nitrogen
g) magnesium
h) potassium

2) Give the name of the following:

a) Na
b) F
c) Ni
d) Zn
e) Ne
f) He
g) Ca
h) Cl

3) What is the difference between the following?

a) Si and SI
b) Pb and PB

4) Why do metals tend to lose electrons and nonmetals tend to gain electrons when forming ions?

5) State whether the elements in each group gain or lose electrons in order to have full valence shells. Also indicate the sign of the charge when the elements in each group.

a) group 1A
b) group 2A
c) group 6A
d) group 7A

6) How many valence electrons are in each of the following atoms?

a) H
b) K
c) Mg
d) He
e) Al
f) Si
g) N
h) P
i) O
j) Cl

7) What will the following atoms do in order to have a full valence shell?

a) calcium
b) sulfur
c) helium
d) chloride **ion**
e) nitrogen
f) potassium

8) Explain why the name for $MgCl_2$ is magnesium chloride but the name for $CuCl_2$ is copper (II) chloride.

9) Complete the following table:

	Br^-	O^{2-}	NO_3^-	PO_4^{3-}	CO_3^{-2}
NH_4^+	NH_4Br				
Mg^{2+}				$Mg_3(PO_4)_2$	
Bi^{5+}					
Sn^{4+}					
Al^{3+}					

10) Give the formula for each of the following:

a) silver sulfite
b) cobalt (II) bromide
c) tin (II) hydroxide
d) aluminum sulfate
e) manganese (II) fluoride
f) ammonium carbonate
g) chromium (III) oxide
h) sodium chromate
i) magnesium hydroxide
j) nickel (II) acetate
k) calcium chlorate
l) lead (II) iodate
m) zinc hydroxide
n) copper (II) chloride
o) barium nitrite
p) potassium permanganate
q) sodium peroxide
r) iron (II) sulfate
s) potassium dichromate
t) bismuth (V) chromate
u) sodium hypochlorite
v) arsenic (V) carbonate
w) chromium (III) sulfite
x) antimony (III) sulfate
y) lithium oxalate

11) Write the name of each of the following:

a) $ZnSO_4$
b) $HgCl_2$
c) $CuCO_3$
d) $Cd(NO_3)_2$
e) $Al(C_2H_3O_2)_3$
f) CoF_2
g) $Cr(ClO_3)_3$
h) Ag_3PO_4
i) NiS
j) $BaCrO_4$
k) $Mn(SeO_4)_2$
l) $As_2(SO_3)_3$
m) $Sn(NO_2)_2$
n) $FeBr_3$
o) $KHCO_3$
p) $BiAsO_4$
q) $Fe(BrO_3)_2$
r) $(NH_4)_2HPO_4$
s) $RbClO$
t) $KMnO_4$