Name _____ Date _____

Evaluating
Topic 2.5

Ionic Compounds with Multivalent Metals

Use with textbook pages 162–163.

You can use the periodic table on page 106 and Roman numerals listed on page 162 to help you answer these questions.

1. Write the formulas and names of the ionic compounds with the following combination of ions. The table has been partially completed to help guide you.

	Positive Ion	Negative Ion	Chemical Formula	Compound Name
a)	Ti^{3+}	Cl^-		
b)				iron(II) oxide
c)			$PdBr_2$	
d)	Sn^{4+}	F^-		
e)				gold(I) chloride
f)	Pt^{4+}	O^{2-}		
g)			CoF_2	
h)				nickel(II) iodide
i)	Nb^{3+}	N^{3-}		
j)			MnO_2	

2. Write the chemical formulas for the following ionic compounds.

a) cobalt(III) fluoride _____

b) osmium(IV) chloride _____

c) chromium(III) oxide _____

d) mercury(II) selenide _____

e) copper(II) chloride _____

f) lead(II) sulfide _____

g) titanium(III) nitride _____

h) bismuth(III) sulfide _____

i) ruthenium(IV) oxide _____

j) nickel(II) fluoride _____

3. Write the names of the following ionic compounds.

a) $NbCl_5$ _____

b) SnF_4 _____

c) Mn_2O_3 _____

d) $RhCl_3$ _____

e) NiF_3 _____

f) HgS _____

g) TlI _____

h) IrO_2 _____

i) $FeCl_2$ _____

j) V_2O_5 _____