

Writing Ionic Chemical Formulas

Using the oxidation number criss-cross method, determine the final chemical formula of each of the following:

Question #	Compound Name	Criss Cross Method	Chemical Formula
22.	Sodium phosphide		
23	Magnesium nitrate		
24	Lead (II) sulfite		
25	Calcium phosphate		
26	Ammonium sulfate		
27	Silver cyanide		
28	Aluminum sulfide		
29	Beryllium chloride		
30	Copper (I) arsenide		

Question #	Compound Name	Criss Cross Method	Chemical Formula
31	Iron (III) oxide		
32	Gallium nitride		
33	Iron (II) bromide		
34	Vanadium (V) phosphate		
35	Calcium oxide		
36	Magnesium acetate		
37	Aluminum sulfate		
38	Copper (I) carbonate		
39	Barium oxide		
40	Ammonium sulfite		

Naming Ionic Compounds Worksheet One

Give the name of the following ionic compounds:

1) Na_2CO_3 _____

2) NaOH _____

3) MgBr_2 _____

4) KCl _____

5) FeCl_2 _____

6) FeCl_3 _____

7) Zn(OH)_2 _____

8) BeSO_4 _____

9) CrF_2 _____

10) Al_2S_3 _____

11) PbO _____

12) Li_3PO_4 _____

13) TiI_4 _____

14) Co_3N_2 _____

15) Mg_3P_2 _____

16) $\text{Ga(NO}_2)_3$ _____

17) Ag_2SO_3 _____

18) NH_4OH _____

19) Al(CN)_3 _____

20) $\text{Be(CH}_3\text{COO)}_2$ _____

TABLE 9.4

Common Polyatomic Ions					
1- charge		2- charge		3- charge	
Formula	Name	Formula	Name	Formula	Name
H_2PO_4^-	Dihydrogen phosphate	HPO_4^{2-}	Hydrogen phosphate	PO_3^{3-}	Phosphite
$\text{C}_2\text{H}_3\text{O}_2^-$	Acetate	$\text{C}_2\text{O}_4^{2-}$	Oxalate	PO_4^{3-}	Phosphate
HSO_3^-	Hydrogen sulfite	SO_3^{2-}	Sulfite		
HSO_4^-	Hydrogen sulfate	SO_4^{2-}	Sulfate		
HCO_3^-	Hydrogen carbonate	CO_3^{2-}	Carbonate	1+ charge	
NO_2^-	Nitrite	CrO_4^{2-}	Chromate	Formula	Name
NO_3^-	Nitrate	$\text{Cr}_2\text{O}_7^{2-}$	Dichromate	NH_4^+	Ammonium
CN^-	Cyanide	SiO_3^{2-}	Silicate		
OH^-	Hydroxide				
MnO_4^-	Permanganate				
ClO^-	Hypochlorite				
ClO_2^-	Chlorite				
ClO_3^-	Chlorate				
ClO_4^-	Perchlorate				