

## Chapter 5 Worksheet

Homework is not collected or graded, but should be worked on seriously every week.

## Part A: Nomenclature of Ions and Ionic Compounds

1. Complete the table below for the following monatomic metal and nonmetal ions.

Atom Name	Ion Formula/ Charge	Ion Name
Barium		
		Phosphide ion
	$\text{Cu}^{+1}$	
	$\text{I}^{-1}$	
Gallium		
Selenium		
		Nickel(III) ion
Hydrogen		
	$\text{Mg}^{+2}$	
		Aluminum ion
	$\text{Pb}^{+4}$	
Potassium		
Sulfur		
		Fluoride ion
Zinc		

2. Write formulas for the ionic compounds listed below. It is helpful to first identify the cations and anions.

Name	Cation	Anion	Chemical Formula
Potassium nitride			
Aluminum sulfide			
Barium nitrite			
Chromium(III) bromide			
Zinc phosphate			
Iron(II) carbonate			
Potassium dichromate			
Niobium(V) oxide			
Ammonium sulfate			
Calcium thiocyanate			
Silver hydroxide			
Manganese(IV) chlorate			
Lithium acetate			
Tin(II) bicarbonate			
Gallium oxalate			
Copper(I) oxide			

Strontium phosphide			
Mercury(II) sulfite			
Potassium peroxide			
Ammonium bromide			
Cesium bisulfite			
Cobalt(III) nitrate			
Magnesium cyanide			
Titanium(IV) phosphite			
Sodium hypochlorite			
Gold(I) thiosulfate			
Indium(III) iodide			
Lithium carbide			
Bismuth(V) chromate			
Nickel(II) Permanganate			

3. Write the names for the ionic compounds listed below.

Formula	Name
MgH <sub>2</sub>	
Ba(ClO <sub>2</sub> ) <sub>2</sub>	
SnF <sub>2</sub>	
KNO <sub>3</sub>	
Li <sub>2</sub> CrO <sub>4</sub>	
(NH <sub>4</sub> ) <sub>3</sub> P	
TiO <sub>2</sub>	
RbCN	
Zn(MnO <sub>4</sub> ) <sub>2</sub>	
Al(HSO <sub>4</sub> ) <sub>3</sub>	
Na <sub>2</sub> S	
CuSO <sub>4</sub>	
Sr(HCO <sub>3</sub> ) <sub>2</sub>	
FeN	
GaCl <sub>3</sub>	
Mn(C <sub>2</sub> O <sub>4</sub> ) <sub>2</sub>	
CaSe	
Au <sub>2</sub> (SO <sub>3</sub> ) <sub>3</sub>	
NaClO <sub>4</sub>	
Mg(OH) <sub>2</sub>	