

Name _____

Regents Chemistry

Polyatomic Ion Nomenclature

Directions: Answer the questions below and complete the tables.

What is a polyatomic ion? _____

What is an oxyanion? _____

List the system used to name oxyanions (*for example, name the oxyanions of Chlorine*)

ClO^- _____

ClO_2^- _____

ClO_3^- _____

ClO_4^- _____

Name the following common polyatomic ions. You must be able to recognize these in a chemical formula and write them according to their names. (*required by Regents*)

Ion	Name		Ion	Name
NH_4^+			H_2PO_4^-	
NO_2^-			CO_3^{2-}	
NO_3^-			HCO_3^-	
SO_3^{2-}			$\text{C}_2\text{H}_3\text{O}_2^-$	
SO_4^{2-}			MnO_4^-	
HSO_4^-			$\text{Cr}_2\text{O}_7^{2-}$	
OH^-			CrO_4^{2-}	
CN^-			O_2^{2-}	
PO_4^{3-}			HPO_4^{2-}	

Directions: Name the following Compounds that contain polyatomic ions

Chemical Formula	Cation	Polyatomic Ion	Name
NaNO ₃			
CuSO ₄			
Ag ₂ CO ₃			
Pb ₂ (SO ₃) ₃			
Cr ₂ (C ₂ O ₄) ₃			
Ti(NO ₂) ₃			
Mg(ClO) ₂			
LiSCN			
Zr(CrO ₄) ₂			
Fe(NO ₃) ₂			
RbClO ₄			

Directions: Write the chemical formula for the following compounds

Chemical Name	Cation	Polyatomic Ion	Chemical Formula
Nickel (III) Nitrate			
Ammonium Sulfate			
Calcium Acetate			
Manganese (VII) Phosphate			
Copper (I) Carbonate			
Sodium Hydrogen Sulfate			
Potassium Oxalate			
Iron (II) dichromate			
Titanium (III) chromate			
Dimercury (I) oxide			
Cobalt (II) nitrite			