

Name _____ Period _____

CP Chemistry of the Earth

Assignment 2O – Polyatomic Ion Compounds (Part 1)

30 Points

Complete the following chart using the in class polyatomic ion chart, including name and charge

Poly Ion	Ion Name	Charge	Poly Ion	Ion Name	Charge
NO_3^{1-}	Nitrate Ion	-1	SO_4^{2-}		
CN^{1-}	Cyanide Ion	-1	CrO_4^{2-}		
BrO_3^{1-}			PO_4^{3-}	$\text{NH}_3 = \text{Ammonia}$ (nitrogen trihydride)	
OH^{1-}			NH_4^{1+}	Ammonium Ion	+1

Complete the following ionic compounds based on the chart below using the cross method.

Elements	Na	NO_3^{1-}
Ion Charge	+1	-1
Cross Method	$\text{Na}(\text{NO}_3)$ $\text{Na}_1(\text{NO}_3)_1$ NaNO_3	
Ionic Formula	NaNO_3	

Elements	Si	CN^{1-}
Ion Charge	+4	-1
Cross Method	$\text{Si}(\text{CN})_4$ $\text{Si}_1(\text{CN})_4$ $\text{Si}(\text{CN})_4$	
Ionic Formula	$\text{Si}(\text{CN})_4$	

Elements	Cu	SO_4^{2-}
Ion Charge	+3	-2
Cross Method	Wrong! $\text{Si}(\text{Cn})_4$ SiCN_4	
Ionic Formula		

CN
 Nitrogen not "n"
 missing ()

Elements	Al	CrO_4^{2-}
Ion Charge		
Cross Method		
Ionic Formula		

Elements	Fe	PO_4^{3-}
Ion Charge		
Cross Method		
Ionic Formula		

Elements	V	NO_3^{1-}
Ion Charge		
Cross Method		
Ionic Formula		

Elements	Si^{4+}	BrO_3^{1-}		W^{6+}	OH^{1-}		Mg	ClO_3^{1-}
Ion Charge								
Cross Method								
Ionic Formula								