CH 150 Nomenclature
Self Quiz Name: _____ Lab Section: _____

This is a sample quiz providing examples of nomenclature. Answers are provided at the end of this handout. *Good luck!*

Provide names or formulas for the following compounds:

nitrogen trifluoride	nitrogen monoxide	nitrogen dioxide
dinitrogen tetroxide	dinitrogen monoxide	phosphorus trichloride
phosphorus pentachloride	sulfur hexafluoride	disulfur decafluoride
xenon tetrafluoride	CCl_4	P_4O_{10}
ClF_3	BCl_3	SF_4
HBr(g)	N_2F_2	XeF_3

PI_3	SCl_2	S_2Cl_2
OF_2	NCl_3	$AsCl_5$

Provide a formula for the following combinations of cation and anion:

	Cl^-	NO_3^-	S^{2-}	CO_3^{2-}	N^{3-}	PO_4^{3-}	OH^-
Na^+							
NH_4^+							
Sn^{2+}							
Hg_2^{2+}							
Al^{3+}							
Sn^{4+}							

Provide the formula and name for the following combinations of cations and anions:

Cation	**Anion**	**Formula**	**Name**
Cu^{2+}	OH^-		
Ba^{2+}	SO_4^{2-}		
NH_4^+	$Cr_2O_7^{2-}$		
Ag^+	$C_2H_3O_2^-$		
Fe^{3+}	S^{2-}		

Provide names and/or formulas for the following:

Formula	Name
$HCl(aq)$	
$HBrO_2(aq)$	
$H_2SO_4(aq)$	
$HNO_2(aq)$	
$HIO(aq)$	
$HIO_4(aq)$	
$NaOH$	
$LiOH$	
NH_4OH	
$Mg(OH)_2$	

Formula	Name
	hydrobromic acid
	chlorous acid
	sulfurous acid
	hydrosulfuric acid
	nitric acid
	phosphoric acid
	phosphorous acid
	potassium hydroxide
	calcium hydroxide
	dihydrogen monoxide

nitrogen trifluoride **NF_3**	nitrogen monoxide **NO**	nitrogen dioxide **NO_2**
dinitrogen tetroxide **N_2O_4**	dinitrogen monoxide **N_2O**	phosphorus trichloride **PCl_3**
phosphorus pentachloride **PCl_5**	sulfur hexafluoride **SF_6**	disulfur decafluoride **S_2F_{10}**
xenon tetrafluoride **XeF_4**	CCl_4 **carbon tetrachloride**	P_4O_{10} **tetraphosphorus decaoxide**
ClF_3 **chlorine trifluoride**	BCl_3 **boron trichloride**	SF_4 **sulfur tetrafluoride**
HBr(g) **hydrogen monobromide** *(not an acid)*	N_2F_2 **dinitrogen difluoride**	XeF_3 **xenon trifluoride**

PI_3 **phosphorus triiodide**	SCl_2 **sulfur dichloride**	S_2Cl_2 **disulfur dichloride**
OF_2 **oxygen difluoride**	NCl_3 **nitrogen trichloride**	$AsCl_5$ **arsenic pentachloride**

Nomenclature *Self Quiz* - **ANSWERS APPEAR IN BOLD**

Provide a formula for the following combinations of cation and anion:

	Cl^-	NO_3^-	S^{2-}	CO_3^{2-}	N^{3-}	PO_4^{3-}	OH^-
Na^+	**$NaCl$**	**$NaNO_3$**	**Na_2S**	**Na_2CO_3**	**Na_3N**	**Na_3PO_4**	**$NaOH$**
NH_4^+	**NH_4Cl**	**NH_4NO_3**	**$(NH_4)_2S$**	**$(NH_4)_2CO_3$**	**$(NH_4)_3N$**	**$(NH_4)_3PO_4$**	**NH_4OH**
Sn^{2+}	**$SnCl_2$**	**$Sn(NO_3)_2$**	**SnS**	**$SnCO_3$**	**Sn_3N_2**	**$Sn_3(PO_4)_2$**	**$Sn(OH)_2$**
Hg_2^{2+}	**Hg_2Cl_2**	**$Hg_2(NO_3)_2$**	**Hg_2S**	**Hg_2CO_3**	**$(Hg_2)_3N_2$**	**$(Hg_2)_3(PO_4)_2$**	**$Hg_2(OH)_2$**
Al^{3+}	**$AlCl_3$**	**$Al(NO_3)_3$**	**Al_2S_3**	**$Al_2(CO_3)_3$**	**AlN**	**$AlPO_4$**	**$Al(OH)_3$**
Sn^{4+}	**$SnCl_4$**	**$Sn(NO_3)_4$**	**SnS_2**	**$Sn(CO_3)_2$**	**Sn_3N_4**	**$Sn_3(PO_4)_4$**	**$Sn(OH)_4$**

Provide the formula and name for the following combinations of cations and anions:

Cation	**Anion**	**Formula**	**Name**
Cu^{2+}	OH^-	**$Cu(OH)_2$**	**copper(II) hydroxide**
Ba^{2+}	SO_4^{2-}	**$BaSO_4$**	**barium sulfate**
NH_4^+	$Cr_2O_7^{2-}$	**$(NH_4)_2Cr_2O_7$**	**ammonium dichromate**
Ag^+	$C_2H_3O_2^-$	**$AgC_2H_3O_2$**	**silver(I) acetate**
Fe^{3+}	S^{2-}	**Fe_2S_3**	**iron(III) sulfide**

Provide names and/or formulas for the following:

Formula	Name
HCl(aq)	**hydrochloric acid**
$HBrO_2$(aq)	**bromous acid**
H_2SO_4(aq)	**sulfuric acid**
HNO_2(aq)	**nitrous acid**
HIO(aq)	**hypoiodous acid**
HIO_4(aq)	**periodic acid**
NaOH	**sodium hydroxide**
LiOH	**lithium hydroxide**
NH_4OH	**ammonium hydroxide**
$Mg(OH)_2$	**magnesium hydroxide**

Formula	Name
HBr(aq)	hydrobromic acid
$HClO_2$(aq)	chlorous acid
H_2SO_3(aq)	sulfurous acid
H_2S(aq)	hydrosulfuric acid
HNO_3(aq)	nitric acid
H_3PO_4(aq)	phosphoric acid
H_3PO_3(aq)	phosphorous acid
KOH	potassium hydroxide
$Ca(OH)_2$	calcium hydroxide
H_2O	dihydrogen monoxide