

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

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 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 ₂ O ₇ ²⁻		
Ag ⁺	C ₂ H ₃ O ₂ ⁻		
Fe ³⁺	S ²⁻		

Provide names and/or formulas for the following:

Formula	Name
HCl(aq)	
HBrO ₂ (aq)	
H ₂ SO ₄ (aq)	
HNO ₂ (aq)	
HIO(aq)	
HIO ₄ (aq)	
NaOH	
LiOH	
NH ₄ OH	
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

Nomenclature *Self Quiz* - ANSWERS APPEAR IN BOLD

nitrogen trifluoride NF₃	nitrogen monoxide NO	nitrogen dioxide NO₂
dinitrogen tetroxide N₂O₄	dinitrogen monoxide N₂O	phosphorus trichloride PCl₃
phosphorus pentachloride PCl₅	sulfur hexafluoride SF₆	disulfur decafluoride S₂F₁₀
xenon tetrafluoride XeF₄	CCl ₄ carbon tetrachloride	P ₄ O ₁₀ tetraphosphorus decaoxide
ClF ₃ chlorine trifluoride	BCl ₃ boron trichloride	SF ₄ sulfur tetrafluoride
HBr(g) hydrogen monobromide <i>(not an acid)</i>	N ₂ F ₂ dinitrogen difluoride	XeF ₃ xenon trifluoride
PI ₃ phosphorus triiodide	SCl ₂ sulfur dichloride	S ₂ Cl 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	NaNO₃	Na₂S	Na₂CO₃	Na₃N	Na₃PO₄	NaOH
NH ₄ ⁺	NH₄Cl	NH₄NO₃	(NH₄)₂S	(NH₄)₂CO₃	(NH₄)₃N	(NH₄)₃PO₄	NH₄OH
Sn ²⁺	SnCl₂	Sn(NO₃)₂	SnS	SnCO₃	Sn₃N₂	Sn₃(PO₄)₂	Sn(OH)₂
Hg ₂ ²⁺	Hg₂Cl₂	Hg₂(NO₃)₂	Hg₂S	Hg₂CO₃	(Hg₂)₃N₂	(Hg₂)₃(PO₄)₂	Hg₂(OH)₂
Al ³⁺	AlCl₃	Al(NO₃)₃	Al₂S₃	Al₂(CO₃)₃	AlN	AlPO₄	Al(OH)₃
Sn ⁴⁺	SnCl₄	Sn(NO₃)₄	SnS₂	Sn(CO₃)₂	Sn₃N₄	Sn₃(PO₄)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⁻	BaSO₄	barium sulfate
NH ₄ ⁺	Cr ₂ O ₇ ²⁻	(NH₄)₂Cr₂O₇	ammonium dichromate
Ag ⁺	C ₂ H ₃ O ₂ ⁻	AgC₂H₃O₂	silver(I) acetate
Fe ³⁺	S ²⁻	Fe₂S₃	iron(III) sulfide

Provide names and/or formulas for the following:

Formula	Name
HCl(aq)	hydrochloric acid
HBrO ₂ (aq)	bromous acid
H ₂ SO 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 ₄ OH	ammonium hydroxide
Mg(OH) ₂	magnesium hydroxide

Formula	Name
HBr(aq)	hydrobromic acid
HClO₂(aq)	chlorous acid
H₂SO₃(aq)	sulfurous acid
H₂S(aq)	hydrosulfuric acid
HNO₃(aq)	nitric acid
H₃PO₄(aq)	phosphoric acid
H₃PO₃(aq)	phosphorous acid
KOH	potassium hydroxide
Ca(OH)₂	calcium hydroxide
H₂O	dihydrogen monoxide