

**IUPAC Practice Test: Science 10**

1) Identify the following as elements, ionic compounds, or covalent compounds. Then, write their names.

Identification	Formula	Name
	BeCl <sub>2</sub>	
	Br <sub>2</sub>	
	SO <sub>3</sub>	
	CaF <sub>2</sub>	
	Ti	
	CO <sub>2</sub>	
	Co(CH <sub>3</sub> COO) <sub>3</sub>	
	Ne	
	AlP	
	H <sub>2</sub> O <sub>2</sub> (hydrogen is a non-metal)	
	Ni <sub>3</sub> N <sub>2</sub>	
	Cl <sub>2</sub>	
	FeCr <sub>2</sub> O <sub>7</sub>	
	XeF <sub>6</sub>	
	Mg(OH) <sub>2</sub>	
	CCl <sub>4</sub>	
	F <sub>2</sub>	
	CaH <sub>2</sub> (hydrogen is a non-metal)	
	N <sub>2</sub> O	
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	
	SiO <sub>2</sub>	
	MnCrO <sub>4</sub>	

2) Identify the following as elements, ionic compounds, or covalent compounds. Then, write their formulas.

Identification	Name	Chemical Formula
	potassium chloride	
	niobium(V) oxide	
	nitrogen	
	manganese(IV) sulfate	
	dinitrogen heptaoxide	
	zinc hypochlorite	
	chromium(II) iodide	
	chlorine	
	trisulfur monoxide	
	molybdenum (II) sulfite	
	ammonium nitride	
	dicarbon trifluoride	
	silver sulfide	
	nickel	
	trinitrogen dioxide	
	yttrium	
	germanium cyanide	
	oxygen monofluoride	
	copper(II) hydrogen sulfate	
	titanium(III) phosphide	
	phosphorus dichloride	
	sodium bisulfite	

**IUPAC Practice Test: Science 10 (KEY)**

Identification	Formula	Name
Ionic	BeCl <sub>2</sub>	beryllium chloride
Element	Br <sub>2</sub>	bromine
Covalent	SO <sub>3</sub>	sulfur trioxide
Ionic	CaF <sub>2</sub>	calcium fluoride
Element	Ti	titanium
Covalent	CO <sub>2</sub>	carbon dioxide
Ionic	Co(CH <sub>3</sub> COO) <sub>3</sub>	cobalt(III) acetate
Element	Ne	neon
Ionic	AlP	aluminum phosphide
Covalent	H <sub>2</sub> O <sub>2</sub> (hydrogen is a non-metal here)	dihydrogen dioxide (note: common name 'hydrogen peroxide')
Ionic	Ni <sub>3</sub> N <sub>2</sub>	nickel(II) nitride
Element	Cl <sub>2</sub>	chlorine
Ionic	FeCr <sub>2</sub> O <sub>7</sub>	iron(II) dichromate
Covalent	XeF <sub>6</sub>	xenon hexafluoride
Ionic	Mg(OH) <sub>2</sub>	magnesium hydroxide
Covalent	CCl <sub>4</sub>	carbon tetrachloride
Element	F <sub>2</sub>	fluorine
Ionic	CaH <sub>2</sub> (hydrogen is a non-metal here)	calcium hydride
Covalent	N <sub>2</sub> O	dinitrogen monoxide
Ionic	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	ammonium sulfate
Covalent	SiO <sub>2</sub>	silicon dioxide
Ionic	MnCrO <sub>4</sub>	manganese(II) chromate

Identification	Name	Formula
Ionic	potassium chloride	KCl
Ionic	niobium(V) oxide	Nb <sub>2</sub> O <sub>5</sub>
Element	nitrogen	N <sub>2</sub>
Ionic	manganese(IV) sulfate	Mn(SO <sub>4</sub> ) <sub>2</sub>
Covalent	dinitrogen heptaoxide	N <sub>2</sub> O <sub>7</sub>
Ionic	zinc hypochlorite	Zn(ClO) <sub>2</sub>
Ionic	chromium(II) iodide	CrI <sub>2</sub>
Element	chlorine	Cl <sub>2</sub>
Covalent	trisulfur monoxide	S <sub>3</sub> O
Ionic	molybdenum (II) sulfite	MoSO <sub>3</sub>
Ionic	ammonium nitride	(NH <sub>4</sub> ) <sub>3</sub> N
Covalent	dicarbon trifluoride	C <sub>2</sub> F <sub>3</sub>
Ionic	silver sulfide	Ag <sub>2</sub> S
Element	nickel	Ni
Covalent	trinitrogen dioxide	N <sub>3</sub> O <sub>2</sub>
Element	yttrium	Y
Ionic	germanium cyanide	Ge(CN) <sub>4</sub>
Covalent	oxygen monofluoride	OF
Ionic	copper(II) hydrogen sulfate	Cu(HSO <sub>4</sub> ) <sub>2</sub>
Ionic	titanium(III) phosphide	TiP
Covalent	phosphorus dichloride	PCl <sub>2</sub>
Ionic	sodium bisulfite	NaHSO <sub>3</sub>