

Polyatomic Ions Worksheet

Polyatomic Practice

1. Name or write the formula for the following polyatomic ions

sulfate



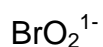
nitrite



perphosphate



hypoiodite



chlorite



phosphite



percarbonate



bromate



hyposulfite



permanganate

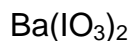


carbonite



2. Name or write the formula for the following Type I polyatomic ionic compounds

beryllium hydroxide



sodium nitrite



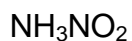
ammonium chloride



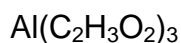
calcium bisulfate



rubidium perchlorate



strontium sulfite



aluminum acetate



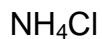
ammonium nitrate



magnesium hypocarbonite



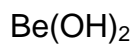
silver hyposulfite



gallium cyanate



barium iodate



3. Name or write the formula for the following Type II polyatomic ionic compounds

iron (III) bromate	_____	Ni(MnO ₃) ₃	_____
copper (I) cyanate	_____	CrSO ₅	_____
plumbous perchlorate	_____	Sn(C ₂ H ₃ O ₂) ₄	_____
mercury (I) bicarbonate	_____	Cu ₂ SO ₅	_____
antimony (III) perphosphate	_____	MnCO ₄	_____
arsenic (V) hypophosphite	_____	Au(NO) ₃	_____
manganese (II) carbonate	_____	SbPO ₃	_____
copper (I) sulfate	_____	HgHCO ₃	_____
tin (IV) acetate	_____	Pb(ClO ₂) ₂	_____
nickel (III) permanganate	_____	Fe(BrO) ₃	_____

Putting It All together

4. Name or write the formula for the following ionic compounds

magnesium chloride	_____	In ₂ O ₃	_____
Strontium phosphate	_____	Zn(BrO ₃) ₂	_____
Tin (IV) nitrite	_____	AgNO ₃	_____
iron (III) thiosulfate	_____	Au ₃ PO ₃	_____
lead (IV) sulfide	_____	KCNO	_____
Calcium nitride	_____	FeS	_____
Sodium sulfate	_____	FeSO ₃	_____
aluminum hydroxide	_____	Ga(IO) ₃	_____
nickel (III) permanganate	_____	Hg ₂ SO ₄	_____
cuprous chloride	_____	CuCl	_____
Gallium hypoiodite	_____	Al(OH) ₃	_____
Ferrous sulfite	_____	Na ₂ SO ₄	_____
potassium cyanate	_____	PbS ₂	_____
Sodium hydrogen carbonate	_____	Ca(BrO ₄) ₂	_____

Polyatomic Ions Worksheet Answer Key

Polyatomic Practice

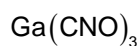
1. Name or write the formula for the following polyatomic ions

sulfate	<u>SO_4^{2-}</u>	CO_3^{2-}	carbonate
nitrite	<u>NO_3^-</u>	MnO_3^{1-}	manganate
perphosphate	<u>PO_5^{3-}</u>	SO_5^{2-}	persulfate
hypoiodite	<u>IO^-</u>	BrO_2^{1-}	bromite
chlorite	<u>ClO_2^-</u>	CO_4^{2-}	percarbonate
phosphite	<u>PO_3^{3-}</u>	PO_5^{3-}	perphosphate
percarbonate	<u>CO_4^{2-}</u>	ClO^{1-}	hypochlorite
bromate	<u>BrO_3^-</u>	IO_2^{1-}	iodite
hyposulfite	<u>SO_2^{2-}</u>	PO_4^{3-}	phosphate
permanganate	<u>MnO_4^-</u>	NO_2^{1-}	nitrite
carbonite	<u>CO_2^{2-}</u>	SO_4^{2-}	sulfate

2. Name or write the formula for the following Type I polyatomic ionic compounds

beryllium hydroxide	<u>$\text{Be}(\text{OH})_2$</u>	$\text{Ba}(\text{IO}_3)_2$	barium iodate
sodium nitrite	<u>NaNO_2</u>	$\text{Ga}(\text{CNO})_3$	gallium cyanate
ammonium chloride	<u>NH_4Cl</u>	Ag_2SO_3	silver sulfite
calcium bisulfate	<u>$\text{Ca}(\text{HSO}_4)_2$</u>	MgCO	magnesium hypocarbonite
rubidium perchlorate	<u>RbClO_4</u>	NH_3NO_2	ammonium nitrite
strontium sulfite	<u>SrSO_3</u>	$\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$	aluminum acetate
aluminum acetate	<u>$\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$</u>	SrSO_5	strontium persulfate
ammonium nitrate	<u>NH_4NO_3</u>	RbClO_2	rubidium chlorite
magnesium hypocarbonite	<u>MgCO</u>	$\text{Ca}(\text{HSO}_4)_2$	calcium bisulfate
silver hyposulfite	<u>Ag_2SO_2</u>	NH_4Cl	ammonium chloride

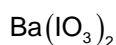
gallium cyanate



NaNO

sodium hyponitrite

barium iodate

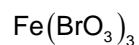


Be(OH)₂

beryllium hydroxide

3. Name or write the formula for the following Type II polyatomic ionic compounds

iron (III) bromate



Ni(MnO₃)₃

nickel (III) manganate

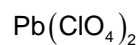
copper (I) cyanate



CrSO₅

chromium (II) persulfate

plumbous perchlorate



Sn(C₂H₃O₂)₄

tin (IV) acetate

mercury (I) bicarbonate



Cu₂SO₅

copper (I) persulfate

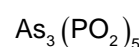
antimony (III) perphosphate



MnCO₄

manganese (II) percarbonate

arsenic (V) hypophosphite



Au(NO)₃

gold (III) nitrate

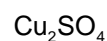
manganese (II) carbonate



SbPO₃

antimony (III) phosphite

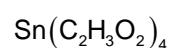
copper (I) sulfate



HgHCO₃

mercury (I) bicarbonate or
mercury (I) hydrogen carbonate

tin (IV) acetate



Pb(ClO₂)₂

lead (II) chlorite

nickel (III) permanganate



Fe(BrO)₃

iron (III) bromate

Putting It All together

4. Name or write the formula for the following ionic compounds

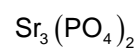
magnesium chloride



In₂O₃

indium oxide

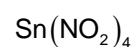
strontium phosphate



Zn(BrO₃)₂

zinc bromate

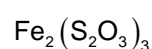
tin (IV) nitrite



AgNO₃

silver nitrate

iron (III) thiosulfate



Au₃PO₃

gold (I) phosphite

lead (IV) sulfide



KCNO

potassium cyanate

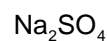
calcium nitride



FeS

iron (II) sulfide

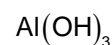
sodium sulfate



FeSO₃

iron (II) sulfate

aluminum hydroxide



Ga(IO)₃

gallium hypoiodite

nickel (III) permanganate



Hg₂SO₄

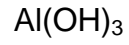
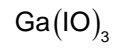
mercury (I) sulfate

copper (I) chloride



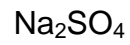
copper (I) chloride

gallium hypoiodite



aluminum hydroxide

iron (II) sulfite



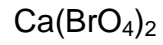
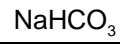
sodium sulfate

potassium cyanate



lead (IV) sulfide

sodium hydrogen carbonate



calcium perbromate
