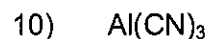
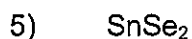
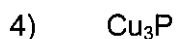
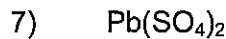


Naming Ionic Compounds Practice Review Worksheet #1

Name the following ionic compounds:



Write the formulas for the following compounds:

11) chromium (VI) phosphate

16) vanadium (V) sulfide

12) vanadium (IV) carbonate

17) chromium (III) hydroxide

13) tin (II) nitrite

18) lithium iodide

14) cobalt (III) oxide

19) lead (II) nitride

15) titanium (II) acetate

20) silver bromide

Solutions for the Naming Ionic Compounds Practice Worksheet

1) ammonium chloride

8) beryllium bicarbonate

2) iron (III) nitrate

9) manganese (III) sulfite

3) titanium (III) bromide

10) aluminum cyanide

4) copper (I) phosphide

11) $\text{Cr}(\text{PO}_4)_2$

5) tin (IV) selenide

12) $\text{V}(\text{CO}_3)_2$

6) gallium arsenide

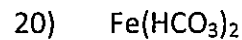
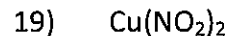
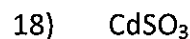
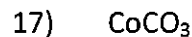
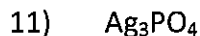
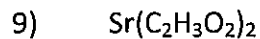
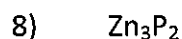
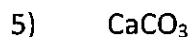
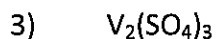
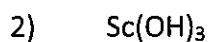
13) $\text{Sn}(\text{NO}_2)_2$

7) lead (IV) sulfate

14) Co_2O_3 15) $\text{Ti}(\text{C}_2\text{H}_3\text{O}_2)_2$ 16) V_2S_5 17) $\text{Cr}(\text{OH})_3$ 18) LiI 19) Pb_3N_2 20) AgBr

Lots of Ionic Naming Practice Problems Review worksheet #2

Name the following ionic compounds:

**Ionic Naming Practice Problems - Solutions**

1) NaBr sodium bromide

2) Sc(OH)₃ scandium hydroxide3) V₂(SO₄)₃ vanadium (III) sulfate4) NH₄F ammonium fluoride5) CaCO₃ calcium carbonate6) NiPO₄ nickel (III) phosphate7) Li₂SO₃ lithium sulfite8) Zn₃P₂ zinc phosphide9) Sr(C₂H₃O₂)₂ strontium acetate10) Cu₂O copper (I) oxide11) Ag₃PO₄ silver phosphate12) YClO₃ yttrium chlorate13) SnS₂ tin (IV) sulfide14) Ti(CN)₄ titanium (IV) cyanide15) KMnO₄ potassium permanganate16) Pb₃N₂ lead (II) nitride17) CoCO₃ cobalt (II) carbonate18) CdSO₃ cadmium sulfite19) Cu(NO₂)₂ copper (I) nitrite20) Fe(HCO₃)₂ iron (II) bicarbonate

Covalent Nomenclature Review worksheet # 3

Write the correct name for:

- | | |
|-----------------------|-----------------------|
| 1) As_4O_{10} _____ | 15) P_4O_{10} _____ |
| 2) BrO_3 _____ | 16) OF_2 _____ |
| 3) BN _____ | 17) ClO_2 _____ |
| 4) N_2O_3 _____ | 18) SiO_2 _____ |
| 5) Nl_3 _____ | 19) BF_3 _____ |
| 6) SF_6 _____ | 20) N_2S_5 _____ |
| 7) XeF_4 _____ | 21) CO_2 _____ |
| 8) PCl_3 _____ | 22) SO_3 _____ |
| 9) CO _____ | 23) XeF_6 _____ |
| 10) PCl_5 _____ | 24) KrF_2 _____ |
| 11) P_2O_5 _____ | 25) $BrCl_5$ _____ |
| 12) S_2Cl_2 _____ | 26) SCl_4 _____ |
| 13) ICl_2 _____ | 27) PF_3 _____ |
| 14) SO_2 _____ | 28) XeO_3 _____ |

Covalent Nomenclature Worksheet –Answer Key

Write the correct name

for:

- | | | |
|---|---|---|
| 1) As_4O_{10}
tetrarsenic decoxide | 10) PCl_5
phosphorous
pentachloride | 19) BF_3
boron trifluoride |
| 2) BrO_3
bromine trioxide | 11) P_2O_5
diphosphorous pentoxide | 20) N_2S_5
dinitrogen pentasulfide |
| 3) BN
boron mononitride | 12) S_2Cl_2
disulfur dichloride | 21) CO_2
carbon dioxide |
| 4) N_2O_3
dinitrogen trioxide | 13) ICl_2
iodine dichloride | 22) SO_3
sulfur trioxide |
| 5) Nl_3
nitrogen triiodide | 14) SO_2
sulfur dioxide | 23) XeF_6
xenon hexafluoride |
| 6) SF_6
sulfur hexafluoride | 15) P_4O_{10}
tetraphosphorous
decoxide | 24) KrF_2
krypton difluoride |
| 7) XeF_4
xenon tetrfluoride | 16) OF_2
oxygen difluoride | 25) $BrCl_5$
bromine pentachloride |
| 8) PCl_3
phosphorous trichloride | 17) ClO_2
chlorine dioxide | 26) SCl_4
sulfur tetrachloride |
| 9) CO
carbon monoxide | 18) SiO_2
silicon dioxide | 27) PF_3
phosphorous trifluoride |
| | | 28) XeO_3
xenon trioxide |

Naming Ionic Compounds Review worksheet 4

Write the formulas of the following ionic compounds

- | | |
|------------------------------|-----------------------------|
| 1) iron (II) arsenide _____ | 5) beryllium chloride _____ |
| 2) lead (II) sulfate _____ | 6) ammonium chromate _____ |
| 3) lead (IV) hydroxide _____ | 7) silver oxide _____ |
| 4) copper (II) acetate _____ | 8) potassium sulfide _____ |

Write the names of the following ionic compounds

- | | |
|--------------------------|-------------------------|
| 9) KI _____ | 13) NaF _____ |
| 10) $Mn_2(SO_3)_7$ _____ | 14) $Sr(MnO_4)_2$ _____ |
| 11) $SnBr_4$ _____ | 15) $Cr(PO_4)_2$ _____ |
| 12) Mg_3P_2 _____ | 16) Al_2Se_3 _____ |

Naming Ionic Compounds - Answers

Write the formulas of the following ionic compounds

- | | | | |
|------------------------|-------------------------------------|-----------------------|-----------------------------------|
| 1) iron (II) arsenide | Fe_3As_2 | 5) beryllium chloride | $BeCl_2$ |
| 2) lead (II) sulfate | $PbSO_4$ | 6) ammonium chromate | $(NH_4)_2CrO_4$ |
| 3) lead (IV) hydroxide | $Pb(OH)_4$ | 7) silver oxide | Ag_2O |
| 4) copper (II) acetate | $Cu(C_2H_3O_2)_2$ | 8) potassium sulfide | K_2S |

Write the names of the following ionic compounds

- | | | | |
|--------------------|--------------------------------|-------------------|--------------------------------|
| 9) KI | potassium iodide | 13) NaF | sodium fluoride |
| 10) $Mn_2(SO_3)_7$ | manganese (VII) sulfite | 14) $Sr(MnO_4)_2$ | strontium permanganate |
| 11) $SnBr_4$ | tin (IV) bromide | 15) $Cr(PO_4)_2$ | chromium (II) phosphate |
| 12) Mg_3P_2 | magnesium phosphide | 16) Al_2Se_3 | aluminum selenide |

Honors Chemistry

Name _____ Period _____

(Still) More Naming Practice Review ws #5

Write the names of the following chemical compounds:

- | | |
|-------------------------------------|----------------------------------|
| 1) BBr_3 _____ | 6) IO_2 _____ |
| 2) CaSO_4 _____ | 7) VO_2 _____ |
| 3) C_2Br_6 _____ | 8) PbS _____ |
| 4) $\text{Cr}(\text{CO}_3)_3$ _____ | 9) CH_4 _____ |
| 5) Ag_3P _____ | 10) N_2O_3 _____ |

Write the formulas of the following chemical compounds:

- | | |
|---------------------------------------|---------------------------------|
| 11) tetraphosphorus triselenide _____ | 16) diselenium diiodide _____ |
| 12) potassium acetate _____ | 17) copper (I) phosphate _____ |
| 13) iron (II) phosphide _____ | 18) gallium oxide _____ |
| 14) disilicon hexabromide _____ | 19) tetrasulfur dinitride _____ |
| 15) titanium (IV) nitrate _____ | 20) Oxygen gas _____ |

(Still) More Naming Practice - Answers

- | | | |
|---|--|--|
| 1) BBr_3 boron tribromide | 10) N_2O_3 dinitrogen trioxide | 17) copper (I) phosphate
Cu_3PO_4 |
| 2) CaSO_4 calcium sulfate | 11) tetraphosphorus triselenide
P_4Se_3 | 18) gallium oxide
Ga_2O_3 |
| 3) C_2Br_6 dicarbon hexabromide | 12) potassium acetate
$\text{KC}_2\text{H}_3\text{O}_2$ | 19) tetrasulfur dinitride
S_4N_2 |
| 4) $\text{Cr}(\text{CO}_3)_3$ chromium (VI) carbonate | 13) iron (II) phosphide
Fe_3P_2 | 20) oxygen
O_2 |
| 5) Ag_3P silver phosphide | 14) disilicon hexabromide
Si_2Br_6 | |
| 6) IO_2 iodine dioxide | 15) titanium (IV) nitrate
$\text{Ti}(\text{NO}_3)_4$ | |
| 7) VO_2 vanadium (IV) oxide | 16) diselenium diiodide
Se_2I_2 | |
| 8) PbS lead (II) sulfide | | |
| 9) CH_4 methane | | |

Naming Acids and Bases Review naming ws # 6

1) NaOH _____

2) H₂SO₃ _____3) H₂S _____4) H₃PO₄ _____5) NH₃ _____

6) HCN _____

7) Ca(OH)₂ _____8) Fe(OH)₃ _____9) H₃P _____*Write the formulas of the following acids and bases:*

10) hydrofluoric acid _____

11) hydroselenic acid _____

12) carbonic acid _____

13) lithium hydroxide _____

14) nitrous acid _____

15) cobalt (II) hydroxide _____

16) sulfuric acid _____

17) beryllium hydroxide _____

18) hydrobromic acid _____

Naming Acids and Bases Answers1) NaOH **sodium hydroxide**2) H₂SO₃ **sulfurous acid**3) H₂S **hydrosulfuric acid**4) H₃PO₄ **phosphoric acid**5) NH₃ **ammonia**6) HCN **hydrocyanic acid**7) Ca(OH)₂ **calcium hydroxide**8) Fe(OH)₃ **iron (III) hydroxide**9) H₃P **hydrophosphoric acid**10) hydrofluoric acid **HF**11) hydroselenic acid **H₂Se**12) carbonic acid **H₂CO₃**13) lithium hydroxide **LiOH**14) nitrous acid **HNO₂**15) cobalt (II) hydroxide **Co(OH)₂**16) sulfuric acid **H₂SO₄**17) beryllium hydroxide **Be(OH)₂**18) hydrobromic acid **HBr**

Chemical Formula Writing Review Worksheet #7

Write chemical formulas for the compounds in each box. The names are found by finding the intersection between the cations and anions. Example: The first box is the intersection between the "zinc" cation and the "chloride" anion, so you should write "ZnCl₂", as shown.

	zinc	iron (II)	iron (III)	gallium	silver	lead (IV)
chloride	ZnCl ₂					
acetate						
nitrate						
oxide						
nitride						
sulfate						

Write the formulas for the following compounds:

- | | |
|----------------------------------|---------------------------------|
| 1) copper (II) chloride _____ | 7) aluminum arsenide _____ |
| 2) lithium acetate _____ | 8) potassium permanganate _____ |
| 3) vanadium (III) selenide _____ | 9) chromium (VI) cyanide _____ |
| 4) manganese (IV) nitride _____ | 10) tin (II) sulfite _____ |
| 5) beryllium oxide _____ | 11) vanadium (V) fluoride _____ |
| 6) sodium sulfate _____ | 12) ammonium nitrate _____ |

Chemical Formula Writing Worksheet Solutions

	zinc	iron (II)	iron (III)	gallium	silver	lead (IV)
chloride	ZnCl ₂	FeCl ₂	FeCl ₃	GaCl ₃	AgCl	PbCl ₄
acetate	Zn(C ₂ H ₃ O ₂) ₂	Fe(C ₂ H ₃ O ₂) ₂	Fe(C ₂ H ₃ O ₂) ₃	Ga(C ₂ H ₃ O ₂) ₃	Ag ₂ C ₂ H ₃ O ₂	Pb(C ₂ H ₃ O ₂) ₄
nitrate	Zn(NO ₃) ₂	Fe(NO ₃) ₂	Fe(NO ₃) ₃	Ga(NO ₃) ₃	AgNO ₃	Pb(NO ₃) ₄
oxide	ZnO	FeO	Fe ₂ O ₃	Ga ₂ O ₃	Ag ₂ O	PbO ₂
nitride	Zn ₃ N ₂	Fe ₃ N ₂	FeN	GaN	Ag ₃ N	Pb ₃ N ₄
sulfate	ZnSO ₄	FeSO ₄	Fe ₂ (SO ₄) ₃	Ga ₂ (SO ₄) ₃	Ag ₂ SO ₄	Pb(SO ₄) ₂

- | | |
|---|--|
| 1) copper (II) chloride CuCl₂ | 7) aluminum arsenide AlAs |
| 2) lithium acetate LiC₂H₃O₂ | 8) potassium permanganate KMnO₄ |
| 3) vanadium (III) selenide VSe | 9) chromium (VI) cyanide Cr(CN)₆ |
| 4) manganese (IV) nitride Mn₃N₄ | 10) tin (II) sulfite SnSO₃ |
| 5) beryllium oxide BeO | 11) vanadium (V) fluoride VF₅ |
| 6) sodium sulfate Na₂SO₄ | 12) ammonium nitrate NH₄NO₃ |

Naming/Formulas Review Worksheet # 8

- Left of the number, record I if compound is ionic and C if it is covalent.
- Complete the name

__1. Al(NO₃)₃ _______8. Ba₃(PO₄)₂ _______2. FeCl₃ _______9. N₂O₄ _______3. CS₃ _______10. Ag₂SO₃ _______4. TiO₂ _______11. NiSe₂ _______5. CaCO₃ _______12. P₃O₅ _______6. Cu(NO₂)₂ _______13. Sn₃(PO₄)₂ _______7. Sn(CN)₄ _____

__14. LiOH _____

- Left of the number, record I if compound is ionic and C if it is covalent.
- Complete the balanced formula

__16. Manganese (III) bromide _____

__23. Carbon tetrachloride _____

__17. Calcium acetate _____

__24. Ammonium phosphate _____

__18. Sulfur dioxide _____

__25. Diphosphorus pentabromide _____

__19. Tin (IV) sulfate _____

__26. Barium cyanide _____

__20. Zinc hydroxide _____

__27. Cobalt (VI) Chromate _____

__21. Lead (IV) nitride _____

__28. Lithium nitrite _____

__22. Copper (II) Chlorate _____

__29. Trisulfur hexafluoride _____

Solutions:

I 1. Al(NO₃)₃ Aluminum nitrateI 11. NiSe₂ Nickel (IV) selenideI 22. Copper (II) Chlorate Cu(ClO₃)₂I 2. FeCl₃ Iron (III) chlorideC 12. P₃O₅ Triphosphorus pentoxideC 23. Carbon tetrachloride CCl₄C 3. CS₃ Carbon trisulfideI 14. Sn₃(PO₄)₂ Tin (II) phosphateI 24. Ammonium phosphateI 4. TiO₂ Titanium (IV) oxideI 15. LiOH Lithium Hydroxide(NH₄)₃PO₄³I 5. CaCO₃ Calcium CarbonateI 16. Manganese (III) bromide MnBr₃C 25. Diphosphorus pentabromideI 6. Cu(NO₂)₂ Copper (II) NitriteI 17. Calcium acetate Ca(C₂H₃O₂)₂P₂Br₅I 7. Sn(CN)₄ Tin (IV) cyanideC 18. Sulfur dioxide SO₂I 26. Barium cyanide Ba(CN)₂I 8. Ba₃(PO₄)₂ Barium PhosphateI 19. Tin (IV) sulfate Sn(SO₄)₂I 27. Cobalt (VI) Chromate Co(CrO₄)₃C 9. N₂O₄ Dinitrogen tetroxideI 20. Zinc hydroxide Zn(OH)₂I 28. Lithium nitrite LiNO₂I 10. Ag₂SO₃ Silver sulfateI 21. Lead (IV) nitride Pb₃N₄C 29. Trisulfur hexafluoride S₃F₆

Lots of Ionic Naming Practice Problems Review worksheet #9

Write the formulas for the following ionic compounds:

1) lithium acetate
_____2) iron (II) phosphate
_____3) titanium (II) selenide
_____4) calcium bromide
_____5) gallium chloride
_____6) sodium hydride
_____7) beryllium hydroxide
_____8) zinc carbonate
_____9) manganese (VII) arsenide
_____10) copper (II) chlorate
_____11) cobalt (III) chromate
_____12) ammonium oxide
_____13) potassium hydroxide
_____14) lead (IV) sulfate
_____15) silver cyanide
_____16) vanadium (V) nitride
_____17) strontium acetate
_____18) molybdenum sulfate
_____19) platinum (II) sulfide
_____20) ammonium sulfate
_____**Ionic Naming Practice Problems - Solutions**

- | | | | | | |
|---------------------------|------------------------------------|-----------------------------|-------------------------------|---------------------------|---|
| 1) lithium acetate | $\text{LiC}_2\text{H}_3\text{O}_2$ | 8) zinc carbonate | ZnCO_3 | 14) lead (IV) sulfate | $\text{Pb}(\text{SO}_4)_2$ |
| 2) iron (II) phosphate | $\text{Fe}_3(\text{PO}_4)_2$ | 9) manganese (VII) arsenide | | 15) silver cyanide | AgCN |
| 3) titanium (II) selenide | TiSe | | Mn_3As_7 | 16) vanadium (V) nitride | V_3N_5 |
| 4) calcium bromide | CaBr_2 | 10) copper (II) chlorate | $\text{Cu}(\text{ClO}_3)_2$ | 17) strontium acetate | $\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2$ |
| 5) gallium chloride | GaCl_3 | 11) cobalt (III) chromate | $\text{Co}_2(\text{CrO}_4)_3$ | 18) molybdenum sulfate | $\text{Mo}(\text{SO}_4)_3$ |
| 6) sodium hydride | NaH | 12) ammonium oxide | $(\text{NH}_4)_2\text{O}$ | 19) platinum (II) sulfide | PtS |
| 7) beryllium hydroxide | $\text{Be}(\text{OH})_2$ | 13) potassium hydroxide | KOH | 20) ammonium sulfate | $(\text{NH}_4)_2\text{SO}_4$ |

Covalent Nomenclature Review worksheet # 10

Write the correct formula for:

- 1) chlorine monoxide _____
- 2) oxygen difluoride _____
- 3) boron phosphide _____
- 4) dinitrogen monoxide _____
- 5) nitrogen trifluoride _____
- 6) sulfur tetrachloride _____
- 7) xenon trioxide _____
- 8) carbon dioxide _____
- 9) diphosphorous pentoxide _____
- 10) phosphorous trichloride _____
- 11) sulfur dioxide _____
- 12) bromine pentafluoride _____
- 13) disulfur dichloride _____
- 14) boron trifluoride _____

Name the compound

- 15) As_4O_{10} _____
- 16) $SiCl_4$ _____
- 17) KrF_2 _____
- 18) ClO _____
- 19) SiO_2 _____
- 20) BCl_3 _____
- 21) N_2S_5 _____
- 22) CO _____
- 23) SO_3 _____
- 24) N_2O_3 _____
- 25) N_2O _____
- 26) XeF_6 _____
- 27) SF_6 _____
- 28) NO _____

Write the correct formula for:

- | | | |
|---|---|--|
| 1) chlorine monoxide
ClO | 10) phosphorous
trichloride
PCl_3 | SiO_2 |
| 2) oxygen difluoride
OF_2 | 11) sulfur dioxide
SO_2 | 20) boron trichloride
BCl_3 |
| 3) boron phosphide
BP | 12) bromine pentafluoride
BrF_5 | 21) dinitrogen
pentasulfide
N_2S_5 |
| 4) dinitrogen monoxide
N_2O | 13) disulfur dichloride
S_2Cl_2 | 22) carbon monoxide
CO |
| 5) nitrogen trifluoride
NF_3 | 14) boron trifluoride
BF_3 | 23) sulfur trioxide
SO_3 |
| 6) sulfur tetrachloride
SCl_4 | 15) tetraarsenic decoxide
As_4O_{10} | 24) dinitrogen trioxide
N_2O_3 |
| 7) xenon trioxide
XeO_3 | 16) silicon tetrachloride
$SiCl_4$ | 25) dinitrogen monoxide
N_2O |
| 8) carbon dioxide
CO_2 | 17) krypton difluoride
KrF_2 | 26) xenon hexafluoride
XeF_6 |
| 9) diphosphorous
pentoxide
P_2O_5 | 18) chlorine monoxide
ClO | 27) sulfur hexafluoride
SF_6 |
| | 19) silicon dioxide | 28) nitrogen monoxide
NO |