

Name: _____

Ionic Compound Formula Writing Worksheet

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 "calcium" cation and the "bromide" anion, so you should write "CaBr₂", as shown.

Cesium Phosphide: Cs₃P

	calcium	cobalt (II)	chromium (III)	aluminum	cesium	tin (IV)
bromide	CaBr ₂	CoBr ₂	CrBr ₃	AlBr ₃	CsBr ₅	SnBr ₄
oxalate	CaC ₂ O ₄	CoC ₂ O ₄	Cr ₂ (C ₂ O ₄) ₃	Al ₂ (C ₂ O ₄) ₃	Cs ₂ C ₂ O ₄	Sn(C ₂ O ₄) ₂
chlorite	Ca(ClO ₂) ₂	Co(ClO ₂) ₂	CrCl ₃	AlCl ₃	CsClO ₂	Sn(ClO ₂) ₄
phosphide	Ca ₃ P ₂	Co ₃ P ₂	CrP	AlP	Al(CO ₃) ₃	Sn ₃ P ₄
sulfide	Ca ₂ S	CoP	Cr ₂ S ₃	Al ₂ S ₃	Cs ₂ S	SnS ₂
bromate	Ca(BrO ₃) ₂	Co(BrO ₃) ₂	Cr(BrO ₃) ₃	Al(BrO ₃) ₃	CsBrO ₃	Sn(BrO ₃) ₄

Write the formulas for the following compounds:

- 1) copper (II) chloride CuCl₂
- 2) lithium acetate LiCH₃COO
- 3) vanadium (III) selenide V₂Se₃
- 4) manganese (IV) nitride Mn₃N₄
- 5) beryllium oxide BeO
- 6) sodium sulfate Na₂SO₄
- 7) aluminum arsenide AlAs
- 8) potassium permanganate KMnO₄
- 9) chromium (VI) cyanide Cr(CN)₆
- 10) tin (II) sulfite SnSO₃
- 11) vanadium (V) fluoride VF₅
- 12) ammonium nitrate (NH₄)₂UNH₄NO₃

Names & Formulas for Ionic Compounds

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|--|------------------------|----------------------------|--------------------------------------|
| 1) Na_2CO_3 | Sodium Carbonate | 21) sodium phosphide | Na_3P |
| 2) NaOH | Sodium Hydroxide | 22) magnesium nitrate | $\text{Mg}(\text{NO}_3)_2$ |
| 3) MgBr_2 | Magnesium Bromide | 23) lead (II) sulfite | PbSO_3 |
| 4) KCl | Potassium Chloride | 24) calcium phosphate | $\text{Ca}_3(\text{PO}_4)_2$ |
| 5) FeCl_2 | Iron (II) Chloride | 25) ammonium sulfate | $(\text{NH}_4)_2\text{SO}_4$ |
| 6) FeCl_3 | Iron (III) Chloride | 26) silver cyanide | AgCN |
| 7) $\text{Zn}(\text{OH})_2$ | Zinc Hydroxide | 27) aluminum sulfide | Al_2S_3 |
| * 8) BeSO_4 | Beryllium Sulfate | 28) beryllium chloride | BeCl_2 |
| 9) CrF_2 | Chromium (II) Fluoride | 29) copper (I) arsenide | Cu_3As |
| 10) Al_2S_3 | Aluminum Sulfide | 30) iron (III) oxide | Fe_2O_3 |
| 11) PbO | Lead (II) Oxide | 31) gallium nitride | GaN |
| 12) Li_3PO_4 | Lithium Phosphate | 32) iron (II) bromide | FeBr_2 |
| 13) TiI_4 | Titanium (IV) Iodide | 33) vanadium (V) phosphate | $\text{V}_3(\text{PO}_4)_2$ |
| 14) Co_3N_2 | Cobalt (II) Nitride | 34) calcium oxide | CaO |
| 15) Mg_3P_2 | Magnesium Phosphide | 35) magnesium acetate | $\text{Mg}(\text{CH}_3\text{COO})_2$ |
| 16) $\text{Ga}(\text{NO}_2)_3$ | Gallium Nitrite | 36) aluminum sulfate | $\text{Al}_2(\text{SO}_4)_3$ |
| 17) Ag_2SO_3 | Silver Sulfite | 37) copper (I) carbonate | Cu_2CO_3 |
| 18) NH_4OH | Ammonium Hydroxide | 38) barium oxide | BaO |
| 19) $\text{Al}(\text{CN})_3$ | Aluminum Cyanide | 39) ammonium sulfite | $(\text{NH}_4)_2\text{SO}_3$ |
| 20) $\text{Be}(\text{CH}_3\text{COO})_2$ | Beryllium Acetate | 40) silver bromide | AgBr |