

Name _____ Date _____ Period _____

Ionic & Covalent Compound Naming Race

First, identify whether these compounds are ionic or covalent. Then, use the correct formula writing rules to write the correct chemical formulas for each compound.

	Compound Name	Type of Compound: Ionic or Covalent	Chemical Formula
1)	copper (II) chlorite		
2)	sodium hydroxide		
3)	nitrogen dioxide		
4)	cobalt (III) oxalate		
5)	ammonium sulfide		
6)	aluminum cyanide		
7)	carbon disulfide		
8)	tetraphosphorous pentoxide		
9)	potassium permanganate		
10)	manganese (III) chloride		
	Compound Name	Type of Compound: Ionic or Covalent	Chemical Formula
11)	calcium bromate		
12)	carbon monoxide		
13)	potassium oxide		
14)	antimony tribromide		
15)	zinc phosphate		
16)	copper (II) bicarbonate		
17)	dinitrogen tetroxide		
18)	manganese (IV) carbonate		
19)	lead (IV) nitride		
20)	pentacarbon decahydride		

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Ionic & Covalent Compound Naming

First, identify whether these compounds are ionic or covalent. Then, use the correct naming rules to write the correct names for each compound.

	Chemical Formula	Type of Compound: Ionic or Covalent	Compound Name
21)	CdBr₂		
22)	Cr(Cr₂O₇)₃		
23)	SBr₂		
24)	(NH₄)₂CrO₄		
25)	CuO		
26)	Pt₃(PO₃)₄		
27)	Al(ClO₄)₃		
28)	NH₃		
29)	Ca(C₂H₃O₂)₂		
30)	N₂O		
	Chemical Formula	Type of Compound: Ionic or Covalent	Compound Name
31)	V(SO₄)₂		
32)	Ag₂CO₃		
33)	N₂S₃		
34)	FeSO₃		
35)	Zn(NO₂)₂		
36)	C₆H₁₂O₆		
37)	PCl₃		
38)	Mn(OH)₇		
39)	Ni(NO₃)₂		
40)	O₂		

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Compound Naming Race - Solutions

Be the first team in the room to correctly get all the names on this sheet right. When you have finished the first ten problems, bring them up to the teacher to be checked. Once these have been checked, move to the second ten. Once all forty problems have been solved, you're the winner!

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|-----|----------------------------|---|
| 1) | copper (II) chlorite | $\text{Cu}(\text{ClO})_2$ |
| 2) | sodium hydroxide | NaOH |
| 3) | nitrogen dioxide | NO_2 |
| 4) | cobalt (III) oxalate | $\text{Co}_2(\text{C}_2\text{O}_4)_3$ |
| 5) | ammonium sulfide | $(\text{NH}_4)_2\text{S}$ |
| 6) | aluminum cyanide | $\text{Al}(\text{CN})_3$ |
| 7) | carbon disulfide | CS_2 |
| 8) | tetraphosphorous pentoxide | P_4O_5 |
| 9) | potassium permanganate | KMnO_4 |
| 10) | manganese (III) chloride | MnCl_3 |
| 11) | calcium bromate | $\text{Ca}(\text{BrO}_3)_2$ |
| 12) | carbon monoxide | CO |
| 13) | potassium oxide | K_2O |
| 14) | antimony tribromide | SbBr_3 |
| 15) | zinc phosphate | $\text{Zn}_3(\text{PO}_4)_2$ |
| 16) | copper (II) bicarbonate | $\text{Cu}(\text{HCO}_3)_2$ |
| 17) | dinitrogen tetroxide | N_2O_4 |
| 18) | manganese (IV) carbonate | $\text{Mn}(\text{CO}_3)_2$ |
| 19) | lead (IV) nitride | Pb_3N_4 |
| 20) | pentacarbon decahydride | C_5H_{10} |

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|-----|--|---------------------------------|
| 21) | CdBr₂ | cadmium bromide |
| 22) | Cr(Cr₂O₇)₃ | chromium (VI) dichromate |
| 23) | SBr₂ | sulfur dibromide |
| 24) | (NH₄)₂CrO₄ | ammonium chromate |
| 25) | CuO | copper (II) oxide |
| 26) | Pt₃(PO₃)₄ | platinum (IV) phosphite |
| 27) | Al(ClO₄)₃ | aluminum perchlorate |
| 28) | NH₃ | ammonia |
| 29) | Ca(C₂H₃O₂)₂ | calcium acetate |
| 30) | N₂O | dinitrogen monoxide |
| 31) | V(SO₄)₂ | vanadium (IV) sulfate |
| 32) | Ag₂CO₃ | silver carbonate |
| 33) | N₂S₃ | dinitrogen trisulfide |
| 34) | FeSO₃ | iron (II) sulfite |
| 35) | Zn(NO₂)₂ | zinc nitrite |
| 36) | C₆H₁₂O₆ | glucose |
| 37) | Ni(NO₃)₂ | nickel (II) nitrate |
| 38) | PCl₃ | phosphorus trichloride |
| 39) | Mn(OH)₇ | manganese (VII) hydroxide |
| 40) | O₂ | oxygen |