

NAMING COMPOUNDS AND WRITING FORMULAS REVIEW

NAME Key

BLOCK _____

Chemists have worked out the formulas of many compounds. If you studied these formulas, you would see patterns. Chemists have used these patterns to make rules about how many atoms of each kind will join with each other. Then we can use the rules to tell what the formula is without having to look it up.

Write down the formulas for the following compounds.

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| 1. hydrogen fluoride: | <u>HF</u> | 19. chromium(II) iodide: | <u>CrI₂</u> |
| 2. magnesium chloride: | <u>MgCl₂</u> | 20. tin(IV) oxide: | <u>SnO₂</u> |
| 3. ammonium sulphide: | <u>(NH₄)₂S</u> | 21. iron(III) carbonate: | <u>Fe₂(CO₃)₃</u> |
| 4. calcium nitrate: | <u>Ca(NO₃)₂</u> | 22. copper(II) carbonate: | <u>CuCO₃</u> |
| 5. silver carbonate: | <u>Ag₂CO₃</u> | 23. mercury(II) nitrate: | <u>Hg(NO₃)₂</u> |
| 6. aluminum hydroxide: | <u>Al(OH)₃</u> | 24. gold(I) nitrate: | <u>AuNO₃</u> |
| 7. potassium carbonate: | <u>K₂CO₃</u> | 25. copper(I) oxide: | <u>Cu₂O</u> |
| 8. barium hydroxide: | <u>Ba(OH)₂</u> | 26. copper(II) oxide: | <u>CuO</u> |
| 9. zinc phosphate: | <u>Zn₃(PO₄)₂</u> | 27. mercury(I) nitrate: | <u>HgNO₃</u> |
| 10. calcium sulphate: | <u>CaSO₄</u> | 28. gold(III) chloride: | <u>AuCl₃</u> |
| 11. magnesium phosphate: | <u>Mg₃(PO₄)₂</u> | 29. iron(III) sulphate: | <u>Fe₂(SO₄)₃</u> |
| 12. barium sulphate: | <u>BaSO₄</u> | 30. cobalt(II) sulphate: | <u>CoSO₄</u> |
| 13. magnesium iodide: | <u>MgI₂</u> | 31. nickel(III) bromide: | <u>NiBr₃</u> |
| 14. ammonium nitrate: | <u>NH₄NO₃</u> | 32. copper(II) hydroxide: | <u>Cu(OH)₂</u> |
| 15. aluminum phosphate: | <u>AlPO₄</u> | 33. tin(II) carbonate: | <u>SnCO₃</u> |
| 16. potassium hydroxide: | <u>KOH</u> | 34. lead(IV) sulphide: | <u>PbS₂</u> |
| 17. nickel(III) oxide: | <u>Ni₂O₃</u> | 35. lead(II) sulphate: | <u>PbSO₄</u> |
| 18. sodium sulphate: | <u>Na₂SO₄</u> | | |

There are also rules for naming compounds. Give the names of the following compounds.

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| 1. NaS: | <u>SODIUM SULFIDE</u> | 18. H ₂ SO ₄ : | <u>HYDROGEN SULFATE</u> |
| 2. KI: | <u>POTASSIUM IODIDE</u> | 19. HCl: | <u>HYDROGEN CHLORIDE</u> |
| 3. Mg(OH) ₂ : | <u>MAGNESIUM HYDROXIDE</u> | 20. K ₃ PO ₄ : | <u>POTASSIUM PHOSPHATE</u> |
| 4. CaCO ₃ : | <u>CALCIUM CARBONATE</u> | 21. Zn ₃ N ₂ : | <u>ZINC NITRIDE</u> |
| 5. BaSO ₄ : | <u>BARIUM SULFATE</u> | 22. FeSO ₄ : | <u>IRON (II) SULFATE</u> |
| 6. Al ₂ S ₃ : | <u>ALUMINUM SULFIDE</u> | 23. CrBr ₃ : | <u>CHROMIUM (III) BROMIDE</u> |
| 7. H ₂ S: | <u>HYDROGEN SULFIDE</u> | 24. PbO ₂ : | <u>LEAD (IV) OXIDE</u> |
| 8. NH ₄ NO ₃ : | <u>AMMONIUM HYDROXIDE</u> | 25. CuCl ₂ : | <u>COPPER (II) CHLORIDE</u> |
| 9. AlPO ₄ : | <u>ALUMINUM PHOSPHATE</u> | 26. Cu ₂ S: | <u>COPPER (I) SULFIDE</u> |
| 10. Na ₂ CO ₃ : | <u>SODIUM CARBONATE</u> | 27. HgNO ₃ : | <u>MERCURY (I) NITRATE</u> |
| 11. K ₂ SO ₄ : | <u>POTASSIUM SULFATE</u> | 28. AuCl: | <u>GOLD (I) CHLORIDE</u> |
| 12. Al ₂ O ₃ : | <u>ALUMINUM OXIDE</u> | 29. FeCO ₃ : | <u>IRON (II) CARBONATE</u> |
| 13. (NH ₄) ₂ S: | <u>AMMONIUM SULFIDE</u> | 30. Co ₃ (PO ₄) ₂ : | <u>COBALT (II) PHOSPHATE</u> |
| 14. H ₂ O: | <u>HYDROGEN OXIDE</u> | 31. Ni(NO ₃) ₂ : | <u>NICKEL (II) NITRATE</u> |
| 15. CaCl ₂ : | <u>CALCIUM CHLORIDE</u> | 32. SnO ₂ : | <u>TIN (IV) OXIDE</u> |
| 16. MgCl ₂ : | <u>MAGNESIUM CHLORIDE</u> | 33. PbCl ₄ : | <u>LEAD (IV) CHLORIDE</u> |
| 17. Mg(NO ₃) ₂ : | <u>MAGNESIUM NITRATE</u> | | |