

## Writing Compound Formulas Worksheet

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Write the correct formula for each of the following ionic compound names.

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| 1. Copper (I) phosphate _____    | 16. Iron (III) sulfate _____             |
| 2. Magnesium nitrite _____       | 17. Silver (I) dichromate _____          |
| 3. Cobalt (II) hydroxide _____   | 18. Lead (II) nitride _____              |
| 4. Iron (III) chromate _____     | 19. Strontium hypochlorite _____         |
| 5. Chromium (II) chloride _____  | 20. Barium chlorate _____                |
| 6. Zinc (II) fluoride _____      | 21. Tin (IV) oxide _____                 |
| 7. Mercury (II) acetate _____    | 22. Nickel (II) cyanide _____            |
| 8. Manganese (II) iodide _____   | 23. Aluminum sulfide _____               |
| 9. Copper (II) nitrate _____     | 24. Lead (IV) chromate _____             |
| 10. Aluminum hydroxide _____     | 25. Potassium permanganate _____         |
| 11. Iron (II) phosphate _____    | 26. Calcium dihydrogen phosphate _____   |
| 12. Magnesium sulfite _____      | 27. Barium hydrogen sulfate _____        |
| 13. Tin (II) bromide _____       | 28. Lithium monohydrogen phosphate _____ |
| 14. Sodium bicarbonate _____     | 29. Silver (I) bisulfite _____           |
| 15. Chromium (III) oxalate _____ | 30. Ammonium carbonate _____             |

Write the Compound formulas for the covalent molecules below:

- |                                  |                                      |
|----------------------------------|--------------------------------------|
| 31. Dinitrogen oxide _____       | 35. Tetraphosphorus trisulfide _____ |
| 32. Carbon tetraiodide _____     | 36. Sulfur hexafluoride _____        |
| 33. Dioxygen heptachloride _____ | 37. Dinitrogen pentoxide _____       |
| 34. Phosphorus tribromide _____  | 38. Tetrasulfur decanitride _____    |

Write the compound name for the following covalent molecules.

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|--|--|
| 39. CS <sub>2</sub> _____                | 43. N <sub>2</sub> S <sub>5</sub> _____  |
| 40. PF <sub>5</sub> _____                | 44. S <sub>2</sub> F <sub>10</sub> _____ |
| 41. CBr <sub>4</sub> _____               | 45. Cl <sub>2</sub> O <sub>7</sub> _____ |
| 42. P <sub>4</sub> S <sub>10</sub> _____ | 46. I <sub>2</sub> O <sub>5</sub> _____  |

**Write formulas for the following ternary ionic compounds.**

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|----------------------------|-------------------------------|
| 1. sodium phosphate _____  | 5. ammonium bromide _____     |
| 2. magnesium nitrate _____ | 6. potassium dichromate _____ |
| 3. sodium hydroxide _____  | 7. cesium chlorate _____      |
| 4. potassium cyanide _____ | 8. iron (III) sulfate _____   |

**Write formulas for compounds using these pairs of ions.**

- |                              |                                     |
|------------------------------|-------------------------------------|
| 9. lithium, carbonate _____  | 12. hydroxide, chromium (III) _____ |
| 10. nitride, tin (IV) _____  | 13. calcium, phosphide _____        |
| 11. sulfide, potassium _____ | 14. chromate, ammonium _____        |

**Write formulas for the following binary compounds.**

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|------------------------------------|---------------------------------|
| 15. nitrogen tribromide _____      | 21. strontium bromide _____     |
| 16. dichlorine monoxide _____      | 22. aluminum nitrite _____      |
| 17. dinitrogen tetrafluoride _____ | 23. copper (II) iodide _____    |
| 18. xenon dichloride _____         | 24. hydrobromic acid _____      |
| 19. lead (IV) sulfide _____        | 25. dihydrogen sulfide _____    |
| 20. phosphorus pentafluoride _____ | 26. dinitrogen difluoride _____ |

**Give the charge on the following ions:**

27. nitrate \_\_\_\_\_ 28. oxide \_\_\_\_\_ 29. phosphate \_\_\_\_\_ 30. nitride \_\_\_\_\_

**Name the following compounds:**

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|-----------------------------------|-------------------------------------|
| 31. CuCN _____                    | 41. $\text{NH}_4\text{HCO}_3$ _____ |
| 32. $\text{SiO}_2$ _____          | 42. $\text{NBr}_3$ _____            |
| 33. $\text{SeF}_4$ _____          | 43. $\text{Cr}(\text{OH})_3$ _____  |
| 34. $\text{HgI}_2$ _____          | 44. $\text{NiI}_2$ _____            |
| 35. $\text{SO}_3$ _____           | 45. $\text{SnCl}_4$ _____           |
| 36. $\text{H}_3\text{PO}_4$ _____ | 46. $\text{SF}_6$ _____             |
| 37. $\text{SrBr}_2$ _____         | 47. $\text{HCl}$ _____              |
| 38. $\text{NiCl}_2$ _____         | 48. $\text{AlF}_3$ _____            |
| 39. $\text{K}_2\text{SO}_4$ _____ | 49. $\text{Cl}_2\text{O}_7$ _____   |
| 40. $\text{FeCO}_3$ _____         | 50. $\text{MnSO}_4$ _____           |

**51. Name and write symbols for all seven diatomic molecules:**

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|----------|----------|
| a. _____ | e. _____ |
| b. _____ | f. _____ |
| c. _____ | g. _____ |
| d. _____ |          |