

Chemical Formulas
Ion Fit Puzzles

Name _____
Date _____ Hour _____

Directions: Cut out the ions from the two pages. Use them to make the formulas for 1-10. Write the formulas for each. Using this same idea, write the rest of the formulas for 11-40. You will have all the charges for each ion, maybe not the exact ion label.

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| 1. Magnesium Chloride $\overset{+2}{Mg}\overset{-1}{Cl}_2$ | 21. Barium Cyanate $\overset{+2}{Ba}(\overset{-1}{CNO})_2$ |
| 2. Aluminum Sulfate $\overset{+3}{Al}_2(\overset{-2}{SO}_4)_3$ | 22. Ammonium Nitrate $\overset{+1}{NH}_4\overset{-1}{NO}_3$ |
| 3. Hydrogen Fluoride $\overset{+1}{H}\overset{-1}{F}$ | 23. Zinc Oxide $\overset{+2}{Zn}\overset{-2}{O}$ |
| 4. Gallium Nitrate $\overset{+3}{Ga}(\overset{-1}{NO}_3)_3$ | 24. Tin (IV) Oxide $\overset{+4}{Sn}\overset{-2}{O}_2$ |
| 5. Lithium Carbonate $\overset{+1}{Li}_2\overset{-2}{CO}_3$ | 25. Sodium Arsenate $\overset{+1}{Na}_3\overset{-3}{AsO}_4$ |
| 6. Potassium Sulfide $\overset{+1}{K}_2\overset{-2}{S}$ | 26. Calcium Oxide $\overset{+2}{Ca}\overset{-2}{O}$ |
| 7. Calcium Hydroxide $\overset{+2}{Ca}(\overset{-1}{OH})_2$ | 27. Mercury (I) Chloride $\overset{+1}{Hg}_2\overset{-1}{Cl}_2$ |
| 8. Rubidium Iodide $\overset{+1}{Rb}\overset{-1}{I}$ | 28. Tin (II) Chloride $\overset{+2}{Sn}\overset{-1}{Cl}_2$ |
| 9. Copper (I) Oxide $\overset{+1}{Cu}_2\overset{-2}{O}$ | 29. Sodium Thiosulfate $\overset{+1}{Na}_2\overset{-2}{S}_2O_3$ |
| 10. Sodium Chloride $\overset{+1}{Na}\overset{-1}{Cl}$ | 30. Potassium Chromate $\overset{+1}{K}_2\overset{-2}{CrO}_4$ |
| 11. Mercury (II) Chloride $\overset{+2}{Hg}\overset{-1}{Cl}_2$ | 31. Iron (III) Nitrate $\overset{+3}{Fe}(\overset{-1}{NO}_3)_3$ |
| 12. Iron (III) Chloride $\overset{+3}{Fe}\overset{-1}{Cl}_3$ | 32. Chromium (II) Iodide $\overset{+2}{Cr}\overset{-1}{I}_2$ |
| 13. Hydrogen Iodide $\overset{+1}{H}\overset{-1}{I}$ | 33. Radium Bromide $\overset{+2}{Ra}\overset{-1}{Br}_2$ |
| 14. Aluminum Oxide $\overset{+3}{Al}_2\overset{-2}{O}_3$ | 34. Ammonium Phosphate $(\overset{+1}{NH}_4)_3\overset{-3}{PO}_4$ |
| 15. Calcium Nitrate $\overset{+2}{Ca}(\overset{-1}{NO}_3)_2$ | 35. Copper (I) Sulfate $\overset{+1}{Cu}_2\overset{-2}{SO}_4$ |
| 16. Sodium Cyanide $\overset{+1}{Na}\overset{-1}{CN}$ | 36. Ammonium Hydroxide $\overset{+1}{NH}_4\overset{-1}{OH}$ |
| 17. Aluminum Bromide $\overset{+3}{Al}\overset{-1}{Br}_3$ | 37. Hydrogen Iodate $\overset{+1}{H}\overset{-1}{IO}_3$ |
| 18. Iron (II) Sulfate $\overset{+2}{Fe}\overset{-2}{SO}_4$ | 38. Calcium Hypochlorite $\overset{+2}{Ca}(\overset{-1}{ClO})_2$ |
| 19. Lithium Fluoride $\overset{+1}{Li}\overset{-1}{F}$ | 39. Sodium Oxalate $\overset{+1}{Na}_2\overset{-2}{C}_2O_4$ |
| 20. Silver Carbonate $\overset{+1}{Ag}_2\overset{-2}{CO}_3$ | 40. Silver Chloride $\overset{+1}{Ag}\overset{-1}{Cl}$ |