

Ion Review

Name Key Per ___ Date ___

A) Give the formulas for the following ions.

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|-------------------------------------|--------------------------------------|
| 1. sodium ion Na^+ | 8. ammonium ion NH_4^+ |
| 2. barium ion Ba^{2+} | 9. sulfide ion S^{2-} |
| 3. phosphate ion PO_4^{3-} | 10. oxide ion O^{2-} |
| 4. chloride ion Cl^- | 11. nitrate ion NO_3^- |
| 5. sulfate ion SO_4^{2-} | 12. hydroxide ion OH^- |
| 6. iron(II) ion Fe^{2+} | 13. aluminum ion Al^{3+} |
| 7. copper(I) ion Cu^+ | 14. carbonate ion CO_3^{2-} |

B) Give the name and formula for the compound that forms when the following ions are mixed.

	Name	Formula
15. Na^+ and SO_4^{2-}	<u>sodium sulfate</u>	<u>Na_2SO_4</u>
16. Ca^{2+} and CrO_4^{2-}	<u>calcium chromate</u>	<u>$\text{Ca}(\text{CrO}_4)$</u>
17. NH_4^+ and Br^-	<u>ammonium bromide</u>	<u>NH_4Br</u>
18. Mg^{2+} and NO_3^-	<u>magnesium nitrate</u>	<u>$\text{Mg}(\text{NO}_3)_2$</u>
19. Cu^{2+} and PO_4^{3-}	<u>copper (II) phosphate</u>	<u>$\text{Cu}_3(\text{PO}_4)_2$</u>
20. Al^{3+} and OH^-	<u>aluminum hydroxide</u>	<u>$\text{Al}(\text{OH})_3$</u>

C) Write the name of the compound then give the formula for the different ions that form when the compound is dissolved in water.

	Name	Cation	Anion
21. KI	<u>potassium iodide</u>	<u>K^+</u>	<u>I^-</u>
22. Na_2CO_3	<u>sodium carbonate</u>	<u>Na^+</u>	<u>CO_3^{2-}</u>
23. $\text{Pb}(\text{NO}_3)_2$	<u>lead (II) nitrate</u>	<u>Pb^{2+}</u>	<u>NO_3^-</u>
24. CuSO_4	<u>copper (II) sulfate</u>	<u>Cu^{2+}</u>	<u>SO_4^{2-}</u>
25. $\text{Mg}_3(\text{PO}_4)_2$	<u>magnesium phosphate</u>	<u>Mg^{2+}</u>	<u>PO_4^{3-}</u>
26. $\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2$	<u>strontium acetate</u>	<u>Sr^{2+}</u>	<u>$\text{C}_2\text{H}_3\text{O}_2^-$</u>