

### Nomenclature Worksheet #4 – Polyatomic Compounds

WRITE FORMULAS FOR EACH OF:

- |                                 |   |
|---------------------------------|---|
| 1. lithium nitrate _____        | 17. aluminum sulfate _____              |
| 2. sodium chlorate _____        | 18. aluminum phosphate _____            |
| 3. calcium nitrate _____        | 19. copper (I) sulfate _____            |
| 4. sodium phosphate _____       | 20. copper (I) phosphate _____          |
| 5. aluminum nitrate _____       | 21. zinc sulfate _____                  |
| 6. potassium sulfate _____      | 22. cobalt (III) chloride _____         |
| 7. ammonium nitrate _____       | 23. calcium hydroxide _____             |
| 8. ammonium oxide _____         | 24. sodium hydroxide _____              |
| 9. potassium chlorate _____     | 25. aluminum hydroxide _____            |
| 10. barium carbonate _____      | 26. ammonium hydroxide _____            |
| 11. iron (II) sulfate _____     | 27. sodium bicarbonate _____            |
| 12. iron (II) nitrate _____     | 28. ammonium bicarbonate _____          |
| 13. iron (II) phosphate _____   | 29. copper (II) bicarbonate _____       |
| 14. titanium (IV) sulfate _____ | 30. aluminum bicarbonate _____          |
| 15. nickel (III) nitrate _____  | 31. iron (III) hydrogen carbonate _____ |
| 16. silver nitrate _____        | 32. sulfate radical _____               |

NAME EACH OF THE FOLLOWING:

33.  $\text{CaSO}_4$  \_\_\_\_\_  
34.  $\text{LiOH}$  \_\_\_\_\_

9. Use the changes in oxidation numbers to identify which atom is oxidized and which is reduced. Then, determine which reactant is the oxidizing agent and which is the reducing agent. (Show your work.) You may need to use electronegativity values (p. 405) to determine which atom is gaining or losing electrons, especially for molecular compounds.



Oxidized \_\_\_\_\_  
Oxidizing Agent \_\_\_\_\_

Reduced \_\_\_\_\_  
Reducing Agent \_\_\_\_\_