

# Advanced Ionic Practice

 Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Hour: \_\_\_\_\_

Write the formulas for the following compounds.

- Lithium acetate  $\text{LiC}_2\text{H}_3\text{O}_2$   $\text{Li}(\text{C}_2\text{H}_3\text{O}_2)$  2. Sodium phosphate  $\text{Na}_3\text{PO}_4$   $\text{Na}_3(\text{PO}_4)$
- Magnesium hydroxide  $\text{Mg}(\text{OH})_2$  \_\_\_\_\_ 4. Sulfuric acid  $\text{H}_2\text{SO}_4$   $\text{H}_2(\text{SO}_4)$
- Ammonium sulfide  $(\text{NH}_4)_2\text{S}$  \_\_\_\_\_ 6. Potassium oxide  $\text{K}_2\text{O}$  \_\_\_\_\_
- Aluminum Phosphate  $\text{AlPO}_4$   $\text{Al}(\text{PO}_4)$  8. Sodium hydroxide  $\text{NaOH}$   $\text{Na}(\text{OH})$
- Acetic Acid  $\text{HC}_2\text{H}_3\text{O}_2$   $\text{H}(\text{C}_2\text{H}_3\text{O}_2)$  10. Carbonic Acid  $\text{H}_2\text{CO}_3$   $\text{H}_2(\text{CO}_3)$

Write the names for the following formulas.

- $\text{CaO}$  \_\_\_\_\_ calcium oxide \_\_\_\_\_ 12.  $\text{BaCl}_2$  \_\_\_\_\_ barium chloride \_\_\_\_\_
- $\text{K}_3\text{PO}_4$  \_\_\_\_\_ potassium phosphate \_\_\_\_\_ 14.  $\text{Mg}(\text{OH})_2$  \_\_\_\_\_ magnesium hydroxide \_\_\_\_\_
- $\text{HNO}_3$  \_\_\_\_\_ nitric acid hydrogen nitrate 16.  $\text{NaC}_2\text{H}_3\text{O}_2$  \_\_\_\_\_ sodium acetate \_\_\_\_\_
- $\text{Li}_2\text{SO}_4$  \_\_\_\_\_ lithium sulfate \_\_\_\_\_ 18.  $(\text{NH}_4)_2\text{SO}_4$  \_\_\_\_\_ ammonium sulfate \_\_\_\_\_
- $\text{Al}(\text{CN})_3$  \_\_\_\_\_ aluminum cyanide \_\_\_\_\_ 20.  $\text{Be}(\text{ClO}_3)_2$  \_\_\_\_\_ beryllium chlorate \_\_\_\_\_

# Practice with Transition Metals

 Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Hour: \_\_\_\_\_

Write the formulas for each of the following compounds:

- manganese(IV) fluoride  $\text{MnF}_4$  \_\_\_\_\_ 2. ammonium phosphate  $(\text{NH}_4)_3\text{PO}_4$   $(\text{NH}_4)_3\text{PO}_4$
- nickel(II) nitrate  $\text{Ni}(\text{NO}_3)_2$  \_\_\_\_\_ 4. sodium nitride  $\text{Na}_3\text{N}$  \_\_\_\_\_
- aluminum sulfate  $\text{Al}_2(\text{SO}_4)_3$  \_\_\_\_\_ 6. chromium(III) hydroxide  $\text{Cr}(\text{OH})_3$  \_\_\_\_\_
- iron(II) phosphate  $\text{Fe}_3(\text{PO}_4)_2$  \_\_\_\_\_ 8. copper(II) chloride  $\text{CuCl}_2$  \_\_\_\_\_

Write the names for each of the following compounds:

- $\text{Cu}_2\text{O}$  \_\_\_\_\_ copper(I) oxide \_\_\_\_\_ Cupric cuprate 10.  $\text{FeSO}_4$  \_\_\_\_\_ iron(II) sulfate \_\_\_\_\_ ferrous
- $(\text{NH}_4)_2\text{S}$  \_\_\_\_\_ ammonium sulfide \_\_\_\_\_ Nickelous 12.  $\text{Ni}_3(\text{PO}_4)_2$  \_\_\_\_\_ nickel(II) phosphate \_\_\_\_\_
- $\text{Cr}(\text{OH})_3$  \_\_\_\_\_ chromium(III) hydroxide \_\_\_\_\_ Chromic 14.  $\text{Ba}(\text{ClO}_3)_2$  \_\_\_\_\_ barium chlorate \_\_\_\_\_ Copric
- $\text{Mn}_2\text{N}_4$  \_\_\_\_\_ manganese(IV) nitride \_\_\_\_\_ 16.  $\text{Cu}_2\text{CO}_3$  \_\_\_\_\_ copper(I) carbonate \_\_\_\_\_

How many oxygen atoms are contained in each of the following compounds?

- $\text{Ca}(\text{NO}_3)_2$  \_\_\_\_\_ 6 18.  $\text{Al}_2\text{O}_3$  \_\_\_\_\_ 3 20.  $\text{Ca}_3(\text{PO}_4)_2$  \_\_\_\_\_ 8
- $\text{MgSO}_4$  \_\_\_\_\_ 4