

1. Write the name of each compound below:

- a)  $\text{Li}_2\text{CO}_3$  \_\_\_\_\_
- b)  $\text{Mg}(\text{HCO}_3)_2$  \_\_\_\_\_
- c)  $\text{Na}_2\text{SO}_4$  \_\_\_\_\_
- d)  $\text{K}_2\text{SO}_3$  \_\_\_\_\_
- e)  $\text{Ba}(\text{OH})_2$  \_\_\_\_\_
- f)  $\text{Al}(\text{CN})_3$  \_\_\_\_\_
- g)  $(\text{NH}_4)_3\text{PO}_4$  \_\_\_\_\_
- h)  $\text{Fe}(\text{NO}_3)_2$  \_\_\_\_\_
- i)  $\text{Mg}(\text{OH})_2$  \_\_\_\_\_
- j)  $\text{Hg}_3\text{PO}_4$  \_\_\_\_\_
- k)  $\text{Ag}_2\text{CrO}_4$  \_\_\_\_\_
- l)  $\text{Rb}_2\text{Cr}_2\text{O}_7$  \_\_\_\_\_
- m)  $\text{NH}_4\text{F}$  \_\_\_\_\_
- n)  $\text{Co}(\text{HSO}_3)_2$  \_\_\_\_\_

2. Write the formula for each compound below:

- a) sodium carbonate \_\_\_\_\_
- b) strontium chlorate \_\_\_\_\_
- c) cesium cyanide \_\_\_\_\_
- d) barium hydrogen carbonate \_\_\_\_\_
- e) zinc hydrogen sulphate \_\_\_\_\_
- f) strontium phosphate \_\_\_\_\_
- g) calcium hydroxide \_\_\_\_\_
- h) ammonium sulphide \_\_\_\_\_
- i) ammonium sulphate \_\_\_\_\_
- j) ammonium sulphite \_\_\_\_\_
- k) copper(II) nitrate \_\_\_\_\_
- l) chromium(III) hydrogen sulphide \_\_\_\_\_
- m) potassium dichromate \_\_\_\_\_
- n) sodium oxalate \_\_\_\_\_
- o) manganese(II) thiocyanate \_\_\_\_\_
- p) magnesium sulphite \_\_\_\_\_
- q) lead(II) perchlorate \_\_\_\_\_
- r) tin(IV) phosphate \_\_\_\_\_
- s) aluminum hydroxide \_\_\_\_\_
- t) beryllium carbonate \_\_\_\_\_

### 3.2.2 Review Questions

- What does IUPAC stand for?
  - Use an example to explain the need for a system of naming chemical compounds.
- List the Roman numerals corresponding to the numbers from 1 to 8.
- Write the symbols or formulas for the following ions:
  - sodium ion \_\_\_\_\_
  - calcium ion \_\_\_\_\_
  - silver ion \_\_\_\_\_
  - copper(II) ion \_\_\_\_\_
  - lead(IV) ion \_\_\_\_\_
  - chloride ion \_\_\_\_\_
  - chlorate ion \_\_\_\_\_
  - chlorite ion \_\_\_\_\_
  - ethanoate (or acetate) ion \_\_\_\_\_
  - ammonium ion \_\_\_\_\_
- Name the following ionic compounds:
  - $\text{AlCl}_3$  \_\_\_\_\_
  - $\text{CaS}$  \_\_\_\_\_
  - $\text{Na}_3\text{N}$  \_\_\_\_\_
  - $\text{K}_2\text{SO}_4$  \_\_\_\_\_
  - $\text{Li}_2\text{O}$  \_\_\_\_\_
  - $\text{FeI}_3$  \_\_\_\_\_
  - $\text{Pb}(\text{NO}_3)_4$  \_\_\_\_\_
  - $\text{Cu}_3\text{PO}_4$  \_\_\_\_\_
  - $\text{NH}_4\text{NO}_2$  \_\_\_\_\_
  - $\text{NaCH}_3\text{COO}$  \_\_\_\_\_
- Write the formulas of the following ionic compounds:
  - sodium oxide \_\_\_\_\_
  - sodium hydroxide \_\_\_\_\_
  - ammonium sulfite \_\_\_\_\_
  - magnesium thiocyanate \_\_\_\_\_
  - calcium monohydrogen phosphate \_\_\_\_\_
  - aluminum ethanoate or aluminum acetate \_\_\_\_\_
  - chromium(III) chloride \_\_\_\_\_
  - barium dihydrogen phosphate \_\_\_\_\_
  - tin(IV) dichromate \_\_\_\_\_
  - zinc nitride \_\_\_\_\_
- List the combining capacities of the mystery elements X, Y, and Z in the following compounds:
  - $\text{XCl}_2$  \_\_\_\_\_  
 $\text{XCl}_3$  \_\_\_\_\_
  - $\text{Y}_2\text{N}_3$  \_\_\_\_\_  
 $\text{YS}_2$  \_\_\_\_\_  
 $\text{Y}_2\text{O}$  \_\_\_\_\_
  - $(\text{NH}_4)_2\text{Z}$  \_\_\_\_\_  
 $\text{AlZ}$  \_\_\_\_\_