

# NOMENCLATURE PART I

NAME \_\_\_\_\_

SECTION \_\_\_\_\_

1. If we tell you that:

Ionic compounds

Covalent compounds

NaCl is called sodium chloride	SO <sub>2</sub> is called sulfur dioxide
BaBr <sub>2</sub> is called barium bromide	N <sub>2</sub> O <sub>5</sub> is called dinitrogen pentoxide
K <sub>2</sub> SO <sub>4</sub> is called potassium sulfate	N <sub>2</sub> O is called dinitrogen monoxide

Using the formula, how would you distinguish between ionic and covalent compounds?

Rule(s) for ionic compounds	Rule(s) for covalent compounds

2. Using the information from Question 1, name the following compounds.

FeCl <sub>2</sub>	HCl (g)
FeCl <sub>3</sub>	HCl (aq)
CuCl	H <sub>2</sub> S (g)
CuCl <sub>2</sub>	H <sub>2</sub> S (aq)

Write rules for naming each of two sets of compounds, using compounds from Questions 1 and 2.

Rule(s) for ionic compounds	Rule(s) for covalent compounds

3. If we tell you that:

$\text{ClO}_4^-$  is called **perchlorate ion**  
 $\text{ClO}_3^-$  is called **chlorate ion**  
 $\text{ClO}_2^-$  is called **chlorite ion**  
 $\text{ClO}^-$  is called **hypochlorite ion**



**What is the rule?**

(Hint: look at number of oxygen)

Per    \_\_\_ ate

       \_\_\_ ate

       \_\_\_ ite

Hypo \_\_\_ ite

What would you call the following ions?

$\text{NO}_3^-$  is called nitrate

$\text{NO}_2^-$  is called \_\_\_\_\_

$\text{SO}_3^{2-}$  is called sulfite

$\text{SO}_4^{2-}$  is called \_\_\_\_\_

$\text{BrO}_3^-$  is called bromate

$\text{BrO}^-$  is called \_\_\_\_\_

4. Complete the following table with the name and formula of the compounds.

	Cl <sup>-</sup>	O <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	PO <sub>4</sub> <sup>3-</sup>
Na <sup>+</sup>				
Fe <sup>2+</sup>				
Fe <sup>3+</sup>				
Al <sup>3+</sup>				

5. Give the formula for:

Barium oxide \_\_\_\_\_

Aluminum chloride \_\_\_\_\_

Magnesium phosphate \_\_\_\_\_

Chromium(II) oxide \_\_\_\_\_

Cobalt(II) chloride \_\_\_\_\_