

Chapter 7

STUDY GUIDE

7.1 SYMBOLS AND FORMULAS

Answer each of the following.

1. What is the most common source for an element's name? What are three other possible sources for the name of an element?

2. Complete the table by filling in the missing name or chemical symbol of each element shown.

Element	Symbol
	K
gold	
phosphorus	

3. a. What element does the symbol ${}^{40}_{20}\text{Ca}$ represent? _____
- b. What is this element's mass number? _____
- c. How many protons, electrons, and neutrons does the element contain? _____
- d. What would the charge be if an atom of this element lost two electrons? _____

4. Complete the table by filling in the missing information.

Chemical formula	Names of elements in compound	Relative number of each atom
NH_3		
$\text{C}_{12}\text{H}_{22}\text{O}_{11}$		
ZnF_2		
Fe_2O_3		

Write T for true or F for false. If a statement is false, change the underlined word(s) to make the statement correct by writing the correct word(s) on the blank.

- _____ 5. Atoms are electrically charged particles.
- _____ 6. In the formula of an ionic compound, the negative ion is written first.
- _____ 7. The charge on a diatomic molecule is called its oxidation number.

8. Write the formulas of the compounds that will be formed when the positive ions listed in the table below combine with each negative ion listed.

	NO_3^-	S^{2-}	OH^-	Cl^-
Al^{3+}				
NH_4^+				
Pb^{4+}				