

Chapter 7 Post to Moodle

STURMAN KEY

Name _____ Class _____ Date _____



CHEMICAL NAMES AND FORMULAS

PRACTICE PROBLEMS

In your notebook, solve the following problems.

See other side as well!

SECTION 6.1 INTRODUCTION TO CHEMICAL BONDING

- Give the name and symbol of the ion formed when
 - a chlorine atom gains one electron. Cl^- chloride ion
 - a potassium atom loses one electron. K^+ potassium ion
 - an oxygen atom gains two electrons. O^{2-} oxide ion
 - a barium atom loses two electrons. Ba^{2+} barium ion
- How many electrons are lost or gained in forming each ion?
 - Mg^{2+} lost 2
 - Br^- gained 1
 - Ag^+ lost 1
 - Fe^{3+} lost 3
- Classify each of the following as a cation, anion, or atom.
 - Be atom
 - Cu^{2+} cation
 - O^{2-} anion
 - Cs^+ cation
 - Na^+ cation
 - I^- anion
 - Ca^{2+} cation
 - Ne atom
- Classify each of the following as a molecular compound or an ionic compound.
 - CO_2 molecular (NM NM)
 - $NaCl$ ionic (M NM)
 - $MgCl_2$ ionic (M NM)
 - N_2 molecular (NM NM)
 - H_2O molecular (NM NM)
- What types of elements tend to combine to form molecular compounds?
nonmetals

M/NM molecular compound
NM ionic compound

SECTION 6.2 REPRESENTING CHEMICAL COMPOUNDS

Use the 3-step problem solving approach you learned in Chapter 4.

- Sulfur forms two molecular compounds with oxygen. Compound A contains 3.505 g of sulfur combined with 3.810 g of oxygen. Compound B contains 6.553 g of sulfur combined with 10.743 g of oxygen. What is the lowest whole-number mass ratio of sulfur that combines with a given mass of oxygen?
- A chemistry student prepared a series of compounds containing only sulfur and fluorine. The following table shows the amount of each element in each compound.

Compound	Mass of sulfur (g)	Mass of fluorine (g)
A	20.18	47.85
B	14.44	8.53
C	16.79	59.68

- Calculate the mass of fluorine per gram of sulfur in each compound.
- How do the numbers in part a. support the law of multiple proportions?

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