Chapter 3 Reference Sheet

AP Chemistry

(Due with Exam III)

Name:_____ **Hour:_____**

Vocabulary

Compositional Stoichiometry.	Empirical Formulas
% Composition	Combustion Analysis

Reaction stoichiometry

Sample Problems

(Identify key calculations required to develop an understanding of the material in the chapter then rewrite and solve the problems in the space below)

Reactions

Notice New Directions (to be discussed after Exam II)

For each of the following reactions, write a balance equation for the reaction and answer the question about the reaction. Coefficients should be in terms of lowest whole numbers. Assume that solutions are aqueous unless otherwise indicated. Represent substances in solutions as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction.

1. Potassium metal reacting with water.
   - How many moles of water reacted if 3.00 g of potassium reacted?

2. Decomposition of sodium azide.
   - What safety devises utilizes this reaction?

3. Combustion of octane
   - When one molecule of hexane is completely combusted, how many molecules of product are formed?

4. A solution of sodium sulfate is mixed with a solution of ammonium carbonate.
   - What observations should be made of this reaction in lab?