

**Chem 115**  
**Fall, 2006**  
**Assignment 3**

**Reading Assignment**

Complete reading Chapter 3 in Brown, LeMay, and Bursten. Read all of Chapter 4, but read “The Activity Series”, pp. 142-144, for interest only. In addition to the topics covered in the text’s Chapter 4, I will talk about the distinction between *analytical concentration* and *actual concentration*. These terms are not covered explicitly in the text, so you will need to be sure to get this material from the lectures. We will probably complete the material in Chapter 4 before Test 1, although it will not be covered on that exam. After that, we will continue with all of Chapter 5.

**Test 1**

The test will be given during regular class time on **Friday, October 13th**. The test will cover all the material in the lectures corresponding to Chapters 1 through 3 in the text. I will indicate the cut-off point for the test in lecture. The week before the exam I will post a detailed study guide for the test and a sample test on the web site under “Information.” These should give you a better feel for the coverage and format of the exam.

**Homework Assignment**

Do the following problems before coming to discussions during the week of September 25th. In addition, your discussion section may be going over nomenclature problems left uncovered from the previous week. In the following problems, calculate any formula or molecular weights to two decimal places. The book’s answers are quoted to only one decimal place for no particular reason. On tests, you will use a periodic table giving atomic weights to four significant figures, which is two decimal places for most lighter elements ( $Z < 44$ ). Therefore, we will most often be dealing with atomic, formula, and molecular weights to four significant digits.

Chapter 2: 2.57, 2.59, 2.61, 2.63, 2.65, 2.69, 2.71.

Chapter 3: 3.1, 3.11, 3.13, 3.17, 3.19, 3.21<sup>1</sup>, 3.23 (a) & (c) only, 3.33, 3.35, 3.37, 3.41.

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<sup>1</sup>The answer to 3.21(g) given in the back of the book and the Solutions Manual, 535.6, is actually the molecular weight of  $\text{Si}_2\text{Br}_6$ . The empirical formula of  $\text{Si}_2\text{Br}_6$  is  $\text{SiBr}_3$ , and its corresponding empirical formula is 267.78.