

Chem 115 - Section 1
Spring, 2007
Assignment 5

Reading Assignment

As noted in previous assignments, read all of Chapters 15 and 16.

Test 2

The second test will be given during regular class time on Wednesday, April 11. It will cover material corresponding to Chapter 14 (except half-life of second-order reactions, pp. 589-590) and Chapter 15.

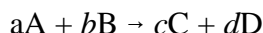
Homework Assignment

Do the following problems, which we will go through in discussions during the week of March 12. Several of these problems involve graphing sets of data. Even though I would not ask you to do graphing on a test, these problems are important to help you understand the concepts. If possible, you should do these with a spreadsheet program (e.g., Excel) or a graphing program. Your answers may differ slightly from the book's, depending on how you read the slopes from the graphs. Don't worry about that; it's the concept that is important. Although you will not be asked to produce graphs like these on a test, if presented with such a graph you should be able to interpret it.

Chapter 14: 14.11, 14.13, 14.15, 14.17¹, 14.19, 14.21, 14.23, 14.27, 14.29, 14.31, 14.33, 14.35, 14.37, 14.39, 14.45, 14.49, 14.51, 14.53, 14.55, 14.59, 14.61, 14.63, 14.65, 14.69, 14.71, 14.75.

This is a large assignment, so it may not be possible to cover all problems in one discussion session. If so, some of the latter problems may be taken up the following week.

¹In this problem, write the series of differential expressions that define the rate in terms of each species' stoichiometry in the balance reaction equation, as shown in class. Remember, for a general reaction of the form



we define

$$Rate = -\frac{1}{a} \frac{\Delta[A]}{\Delta t} = -\frac{1}{b} \frac{\Delta[B]}{\Delta t} = +\frac{1}{c} \frac{\Delta[C]}{\Delta t} = +\frac{1}{d} \frac{\Delta[D]}{\Delta t}$$