

MEMORANDUM

Chemistry
Department

To: Ben, Cory, Molly and Peter
From: John I. Gelder
Date: March 15, 2002
Re: Grading and returning PS #7

The answers to PS #7 are available on the class web site (<http://intro.chem.okstate.edu>). After reviewing the problem sets I have decided we should grade problems 7.1, 7.6, and 7.9 for 3 points. The maximum possible on the problem set is twelve points. The remaining three points are awarded on an all or nothing basis for completion of the remaining problems.

If you have any questions about the grading procedure described below, please see me. Please do not assign any fractional points. Use a holistic approach, if the student's answer is not quite correct you must make the decision if it is at least half right in which case give the student the point. However, on the next occasion (in the same grading session) that you have to stop and ask yourself whether the student should receive the benefit of the doubt, do not give them the point. Reverse this procedure if for the first time you decide not to give them the benefit of the doubt, the next occasion give them the point. If the PS is marked LATE, deduct the 3 points for completion

Please return the graded problem sets to your students next week. Be sure to record the scores for each student.

Copies of the answers and the grading memo are on the WEB.

Grading the Review Problem Set

- PS7.1 **3 points** 2 point for part a and 1 point for part c. In part a assign 1 point for the ICE table and 1 point for showing how the numbers in the Change row were determined. If the correct numbers are given, but it is not shown how the numbers were obtained deduct the 1 point. Assign the 1 point for part c for the ICE table set up correctly.
- PS7.6 **3 points.** Grade parts b, c and e for 1 point each. In part b look for some indication of the stoichiometric relationship between the two substances, or an ICE table correctly setup and filled out. Part c should come from the ICE table, or from some stoichiometry. If the student used an ICE table it in part b, most likely. That is where you will have to look for their work. In part e check they have calculated the K for the reaction given to them in the problem. The most common error will be where the student reverses the reaction and reports the reciprocal of the correct K. Deduct 1 point for that particular error.
- PS7.9 **3 points.** 1 point for an ICE table, 1 point for the change row values and one point for correctly including the volume of the container. Students will use different approaches when it comes to using the volume. They may do the ICE table in moles or in molarity. If they use moles in the ICE table they must calculate molarity (in the equilibrium expression) to get the correct K. If they do not deduct a point. Watch out that the correct answer is there and lots of work, but the work is all wrong. I reviewed a few papers that had the correct answer but if you attempted to get the answer reported using their number the K was different.
- 3 points** For attempting the remaining 5 problems. Remember each problem must have an answer, an attempt. If the student writes nonsense deduct the 3 points. Since several plots are required in this problem set, deduct the three points if the plots are not included.