

MEMORANDUM

Chemistry
Department

To: Ben, Cory, Molly and Peter
From: John I. Gelder
Date: March 11, 2002
Re: Grading and returning PS #6

The answers to PS #6 are attached. After reviewing the problem sets I have decided we should grade problems 6.3, 6.5, and 6.6 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

- PS6.4 **3 points** 1 point for calculating the molality of the solution correctly, 1 point for determining the ΔT for the solution and 1 point for the correct boiling point.
- PS6.5 **3 points.** Grade parts a, and b for 1 point each. In part a award 1 point for communicating that the freezing point depends on the number of particles in the solution. In part b check that the student has calculated an ideal freezing point for each of the substance (except acetic acid and ammonia). I guess I did not ask them to show their work on this section, but check that the ideal fp compare to mine. If all are correct award 2 points. If there is a common consistent error in their calculation deduct 1 point. If the ideal freezing points are wrong, and it is not obvious what is wrong deduct both points.
- PS6.6 **3 points.** 1 point for the molality of the solution, 1 point for the value of i and the ideal freezing point, and 1 point for the explanation for why the observed fp does not agree with the ideal fp.
- 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.