

To: Andy, Ben, Kevin, Matt and Tyler
From: John I. Gelder
Date: October 15, 2001
Re: Grading PS6

STAFF MEETINGS...FRIDAYS, 3:30 p.m.

The answers to PS #5 are attached. After reviewing the problem sets I have decided we should grade problems PS6.5, PS6.6, and PS6.7/8 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. **Check that PS5.9 is included in this Problem Set. If missing deduct the 3 points for completeness.** Note: If the word 'Late' is written at the top of the Problem Set grade as usual but deduct 3 points from their total. Note: 'Late' means the student found me at the end of class or immediately after class. I will not accept Problem Sets more than a few minutes after class is over, and such cases will have a minimum of 3 points deducted from their score.

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.

Please return the graded problem sets to your students in laboratory 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

- PS6.5 **3 points** In the explanation for the answer, award 1 point for stating the molecules have a higher kinetic energy at the higher temperature. Award a point for stating at the higher temperature there are a higher fraction of particles with an energy greater than the activation energy. Award the last point for indicating these two factors contribute to a higher number of effective collisions.
- PS6.6 **3 points** 1 point each for parts a, b and c. In part a0 there should be more than just a statement. The student should indicate the relationship between the increase in rate, the concentration change and the order of the reaction. In parts b and c, a simple statement relating the change to the order is sufficient.
- PS6.7/8 **3 points.** 2 points for PS6.7 and 1 point for PS6.8. Award 1 point for the correct overall reaction and 1 point for the rate law. Award 1 point for the correct Lewis structure of the activated complex. In PS6.8 check that HCO_3^- has the correct structure. If the student has the H atom bonded to carbon deduct the point for this part.
- 3 points** For attempting the remaining 7 problems. Remember each problem must have an answer, an attempt. If the student writes nonsense for any of the other answers deduct the 3 points.