

MEMORANDUM

Chemistry
Department

To: Andy, Ben, Kevin, Matt and Tyler
From: John I. Gelder
Date: September 2, 2001
Re: Grading PS1

STAFF MEETINGS...FRIDAYS, 4:30 p.m. or Thursdays at 1:30 pm.

The answers to PS #1 are attached. After reviewing the problem sets I have decided we should grade problems PS1.2, PS1.4, and PS1.8 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. 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

- PS1.2 **3 points** 1 point each for the drawing. To earn the point the drawing must correct depict the phase of the substance. For nitrogen the student should draw a diatomic molecule. For water a tri-atomic molecule that looks like a water molecule should be drawn. Do not worry if the water molecules are not oriented correctly for hydrogen bonding. Deduct the point if the phase is not correctly depicted. If both the nitrogen and water molecules are not depicted correctly deduct a point. If the nitrogen molecule is represented as a monoatomic species and the water is correct, do not deduct a point.
- PS1.4 **3 points** Look for the steps that occur in the change from gas to liquid or from solid to liquid. I do not need the step as explicitly stated as I have them but the students needs to show the separate steps in the calculation. Deduct a point for any math error in either part. If no work is show, just the answer, deduct 2 points.
- PS1.8 **3 points.** 2 point each for part a and 1 point c. Award 1 point for the actual graph. Students were told to include the graph with their problem set. And do not except hand-drawn sissy graphs unless it looks better than a computer generated graph! The other point for showing the determination of a heat of vaporization for phosphorus. In part c award the point for the correct vapor pressure.

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.