

General Chemistry 1**Problem Set 9****Due Friday, December 2, 2005 (note change from syllabus)****Remember that Test 4 has been postponed to Wednesday, December 7**

Note that for the mathematical equilibrium problems, you must demonstrate on paper how you solved an equation. You cannot merely write down the answer from an equation solver in your calculator.

1. (7 points) Silberberg 17.4. Answer part (b) in light of what we talked about in class. [Note to tutors: The answer in the solutions manual is vague and inadequate.]
2. (6 points) Silberberg 17.13. You should use the smallest set of whole number coefficients to balance each reaction.
3. (4 points) Silberberg 17.42
4. (12 points) Silberberg 17.48. You are required to check the validity of any assumption you make to solve the problem.
5. (8 points) Silberberg 17.52
6. (4 points) Silberberg 17.66. Briefly justify your answers.
7. (4 points) Silberberg 17.72. (i) Note that H is the symbol for enthalpy, which is defined as heat transferred at constant pressure. For the purpose of this course, enthalpy is synonymous with energy (E). You will learn the difference between E and H in Chemistry 112 next semester. (ii) Remember that exothermic means that ΔE_{rxn} (and ΔH_{rxn}) is negative; endothermic means that ΔE_{rxn} (and ΔH_{rxn}) is positive. (iii) You are not required to justify your answers.
8. (12 points) Silberberg 17.90