

**Accelerated General Chemistry**  
**Problem Set 13**  
**Due Friday, December 14, 2007 (at 4:00 p.m.)**  
Total Points on This Assignment = 52

**Note:** Report all pH to two significant figures (that is, to two decimal places). This is the maximum accuracy we can expect from a pH meter.

1. (8 points) Atkins and Jones Exercise 9.16. Do part (b) only. Use  $\Delta_f H^\circ$  and  $S_m^\circ$  (that is molar entropy) values to solve this problem—do not use standard Gibbs energies of formation.
2. (3 points) Atkins and Jones Exercise 9.18.
3. (6 points) Atkins and Jones Exercise 9.24. Very briefly justify your answer in part (b).
4. (6 points) Atkins and Jones Exercise 10.32. Do parts (a), (c), and (e) only.
5. (8 points) Atkins and Jones Exercise 10.54. Do part (a) only.
6. (6 points) Atkins and Jones Exercise 10.58. Do part (a) only.
7. (8 points) Atkins and Jones Exercise 10.63. Note that the answer to this problem (and all odd-numbered problems) are in the back of the book!
8. (7 points) Atkins and Jones Exercise 10.70. Do part (a) only.