General Chemistry II
Problem Set 5
Due Friday, October 15, 2004

1. (8 points) Classify the eight species from Problem Set 4, #1 and #2 ((a) PF₃; (b) TeH₂; (c) PF₆⁻; (d) ClO₂⁻; (e) GeH₄; (f) AsF₃; (g) PCl₄⁺; (h) SF₂) as polar or nonpolar. You need not justify your answers.

2. (15 points) Atkins and Jones Exercise 3.46

3. (12 points) Atkins and Jones Exercise 3.48

4. (6 points) Atkins and Jones Exercise 3.52

5. (10 points) Atkins and Jones Exercise 3.56

Revision to Course Syllabus

I have decided to expand our coverage of chemical structure. Specifically, I want to apply hybridization concepts to organic molecules. This will help prepare you for Organic Chemistry I next fall. To make time for this, I will be skipping our in-class coverage of gases (Chapter 4). All of you have already done calculations in high school using the ideal gas law, and you will be reviewing this material as we do Experiment 6 and start talking about thermodynamics (Chapter 6).