

Due date: Thursday, Feb. 1

Deadline: Tuesday, Feb. 6

S means a problem in Schroeder's text; GT means a problem in Gould & Tobochnik.

1. S 1.5

2. S 1.8 a,c (b done in class)

3. S 1.14 (cf. 1.13, including the footnote)

4. S 1.17 a–c

5. S 1.24

6. S 1.28

7. GT 1.1 a,b (You should also consider parts c and d, but you do not need to turn them in.) You cannot access the applet directly from the URL in the problem. Instead, click on **Java Simulations for Statistical and Thermal Physics** on the **Physics 404 Relevant Web Sites** page or directly access <http://stp.clarku.edu/simulations/>, then select **Approach to equilibrium II**. In part a, try starting with a smaller number, say 9 or even 3. Use the panel LJgasApp Controller. Most of the buttons are self-explanatory. To reset the number N of circles, press Stop, then New, then highlight the number in the Value column and *double-click* it (at least with Windows XP). Then you can replace it with another number.