

Physics 14 Thermal Physics Spring 2005

Assignment #1 - Due Tuesday 1/25/05

Problem sessions : Sunday afternoon at 3:00PM in Science Center 113

Lecture Notes : Boccio --- pages 1-45

Textbook readings : Schroeder - chapter 1 pages 1-33

The lecture notes contain some material not in the textbook and the textbook contains some material not in the lecture notes.

Where the textbook does a complete job, my lecture notes just repeat the textbook so that there is lots of overlap between the lecture notes and the textbook readings. When the textbook needs supplemental information, expanded derivations, computer calculations and so on, then my lecture notes provide that extra material.

My lecture notes also contain 35 solved problems and 6 IDL computer programs.

Textbook problems :

- 1.08 - linear thermal expansion
- 1.15 - hot-air balloon
- 1.31 - expanding helium
- 1.32 - compressing water
- 1.34 - "rectangular" cyclic process
- 1.39 - bulk modulus
- 1.42 - specific heat of pasta
- 1.46 - why constant pressure
- 1.47 - cool off the hot tea
- 1.48 - melt the snow pack