

Lecture 7

Pre-Lecture Preparation (due within the first 5 minutes of class):

- Read pages 626 – 634 in the textbook (Serway 9th edition) and do the following:
 - 1) Quick Quizzes 21.1 – 21.2
 - 2) Book Objective Questions (p. 644): 1
 - 3) Book Problems (p. 645): 2 and 14

Goals for the Lecture:

- 1) Understand that temperature is directly related to the average kinetic energy of the molecules in an ideal gas
- 2) Understand the terms “degree of freedom” and “equipartition of energy” and “rms speed”
- 3) Understand molar specific heat at constant volume and at constant pressure and how to use each to solve problems
- 4) Understand that the ratio of molar specific heat at constant pressure that at constant volume has a special significance and can be used to solve problems

Post-Lecture Study Guide (I do not collect this):

Review the worksheets or other lecture material within 24 hours (preferably the same day as the lecture) to reinforce the ideas. Review the pre-lecture questions to make sure you understand them.

Do problems:

Ch 21: Conceptual Questions: 2 and 5

Ch 21: Objective Questions: 2

Ch 21: Problems: 5 and 15

Continue with the additional recommended study problems from chapter 21