

ASSIGNMENT: HRW Chapter 21; I will not hold you responsible for Section 7.

CONCEPTS:

1. SECOND LAW OF THERMODYNAMICS Note again the three formulations we have talked about: Kelvin-Planck, Clausius, and Entropy. Try to be able to state all three, and understand why they are really equivalent.
2. A Carnot cycle is a *reversible* heat engine and hence most efficient possible heat engine. See if you can figure out *why* it is reversible, and what one would have to do to make an engine irreversible.
3. Refrigerator: a heat engine running backward!

QUESTIONS: Chapter 21, all

PROBLEMS: Chapter 21, all

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TURN IN: Chapter 21, Question 8; Problems 23, 29, 37, 40

ANNOUNCEMENTS:

1. Our first exam will be next Wednesday, 25 September. The exam will consist of questions and problems similar to the homework problems. I will probably take at least some of the questions straight from the book. Work as many problems as you can. Do the exercises to build confidence, and then tackle some of the harder problems.

You may bring to the exam one sheet of paper with anything you like written on it *except* worked-out problem or sample problem solutions. I will ask you to turn in this sheet of paper with the exam.

A good way of studying is to give yourself a “sample exam.” Pick a problem and see if you can do it under exam conditions in 10 minutes or so.

I want to leave plenty of time for questions and review.

2. We will schedule some optional afternoon review sessions. In addition, we can also use much of the class period on Monday for review. However, if you run out of questions on Monday, I may start talking about the material in the next section of the course.