

Physics 3180 (Thermal Physics)
spring 2006

Problem Set 8
(due Monday, March 20)

1. Problem 5.32, page 174.
2. Problem 5.35, page 175.
3. Problem 5.36, page 175. Please use a computer to make a quantitatively accurate plot—not just a sketch. I suggest using Mathematica.
4. Problem 5.37, page 176.
5. Problem 6.3, page 225. Again, I suggest using Mathematica for the graph.
6. Problem 6.4, page 225. “Estimate” in this case means try to get an answer that’s accurate to within 10% or so.
7. Problem 6.6, page 227. Here the word “estimate” is simply an acknowledgment that a small uncertainty in the temperature might create a large uncertainty in the answer.
8. Problem 6.12, page 228. Be sure to read the rest of the problems on this page to get an idea of the range of possible applications.
9. Problem 6.15, page 231.
10. Problem 6.16, page 231. The formula that you’ll derive in this problem will be used repeatedly in the text, so I want everyone to become reasonably comfortable with it.
11. Answer the questions on the reverse side of this sheet.

Textbook Comments

Problem Set 8

With respect to the portion of your textbook that was covered by this problem set, including the problems themselves ...

Describe at least one thing that you liked about the book. Please be as specific as you can.

Describe at least one thing that you disliked about the book, or one way in which the book could be improved. Please be as specific as you can.