Physics 335—Thermal Physics
Homework Assignment #1
Due Wednesday, September 4, 2024, 11:40 a.m.

Ch 1: Do problems 1.12, 1.20, 1.24, 1.33, 1.36, and 1.48. (20 pts. each)

For problem 1.36, you might find it easier to do part (c) before doing part (b). Once you know the temperatures, you can compute the work easily using equations 1.32 and 1.33.

- Problems will be due at the *beginning* of class. **Late homework will normally not be accepted**.
- For written homework, I expect your work to be clearly organized and easy to follow. You should include not just numbers and calculations, but also include some text to explain *what* you are doing and *why*. This can often be quite brief, but it is *your* responsibility to make your reasoning clear; it is not the reader's responsibility to try to figure out what you meant. Homework that is incomplete or difficult to understand will not get full credit. These guidelines are intended to help *you* present your work effectively.

    1. Be sure to include your name on each page.
    2. Each problem should be clearly labeled.
    3. It is often helpful to include figures. Any figures should have clear labels.
    4. Show your work clearly, and include all non-trivial steps. Use words to explain what you are doing and why. This can often be very brief, something like "Use the equipartition theorem," or "Use conservation of energy."
    5. Allow plenty of space.
    6. Put a $\boxed{\text{box}}$ around your final solution, including correct units.

- **Illegible papers will not be accepted**. If I have difficulty reading or understanding your work, I may return it to you ungraded for re-submission. You may resubmit a legible version (along with the original) by the next class meeting, but that version must not have any new content—it must simply be a legible version of the original.
- Please look at the homework problems ahead of time and ask questions about them either in or out of class. I am happy to give whatever help you need, but it is important that you eventually learn to do these problems on your own—after all, that's what you will have to do on the tests.
- Homework will normally be due on Wednesdays. If you look at the problems ahead of time, I will be happy to spend class time on Mondays going over any difficulties that might arise.

Academic Honesty

If you get bogged down with any of the problems, do not hesitate to discuss them with your instructor or with a fellow student. For this course–and indeed for most advanced courses in any discipline—I believe such collaboration to be an essential element for success. I do not require any specific or explicit group work, but my expectation is that everyone will be open to both giving and receiving aid from their peers.

The only stipulation is that if you get help from *anyone* (besides your instructor) you should acknowledge that collaboration. Please see the Academic Honesty policy for more information about appropriate and inappropriate collaboration.