

Physics 317

Homework #11 – Due in class Fri Dec 9

0. Write down all of the important formulae from the “Essentials” subsections for all chapters in Baierlein that we’ve covered. (include relevant formulae from chapter 8 and group by chapter, for easy reference)
This will not be graded, but it will help you prep for the final. Also, include any additional eqs that you find helpful from Zemansky, and equivalent formulations of the same expressions. We will review during the last class, I’ll ask you to take turns writing your lists on the board.
1. Baierlein, problem 6.1
2. Baierlein, Problem 6.2
3. Baierlein, Problem 6.3.
 - a. Hints for part c: (i) make a change of variables to simplify the nonlinear equation you need to solve. (ii) estimate your solution to the nonlinear equation to only 1 sig fig and perform all subsequent calculations to only 1 sig fig.
 - b. For part d: compare your expression for the wavelength “at peak” of the distribution to $c/v_{at\ peak}$ using Baierlein’s equation 6.22
4. Baierlein, Problem 6.4
5. Baierlein, Problem 6.6
6. Baierlein, Problem 6.14 a-b only.