

## Physics 262: Problem Set #1

These problems are due at the end of the day on Friday, January 11. Your solution should include:

- A basic description of the situation and goals (including diagrams usually!). Often a restatement of the problem is helpful.
- Your plan or strategy. How do you plan to solve the problem? Usually you will divide the problem into *subproblems*.
- Details of the solutions.
- Checks of your result(s) [**not just units!**].

The most convenient format to use will depend on the type of problem you are solving; *you do not need to follow a fixed format*.

1. Kleppner and Kolenkow, problem 4.7, pg. 196.
2. Kleppner and Kolenkow, problem 6.1, pg. 279.
3. Kleppner and Kolenkow, problem 6.12, pg. 280.
4. Kleppner and Kolenkow, problem 6.18, pg. 281.
5. Kleppner and Kolenkow, problem 6.22, pg. 282.
6. BTM 3.1.2 (p. 53)
7. BTM 3.1.3 (p. 56)
8. BTM 3.1.4 (p. 58)
9. Wednesday Mathematica session assignment: reproduce figure 3.1 on page 59 of BTM.
10. (BONUS) Kleppner and Kolenkow, problem 6.34, pg. 284.