

Physics 262: Problem Set #3

These problems are due by the end of the day on Friday, Jan. 20 in the graders' box.

NOTE: For each problem, your solution should begin with a brief statement of the problem, i.e. a description of the setup, including a list of the inputs and the goal.

1. Morin 1.17 — to be done in Mathematica on Thursday
2. Morin 8.43 (Maximum frequency) p. 341
3. Morin 8.46 (Board and cylinders, again) p. 341
4. Morin 8.72 (Up, down and twisting) p. 348
5. Morin 7.4 (r^k Potential) p. 297.
6. Morin 7.5 (Spring ellipse) p. 297.
7. Morin 7.9 (String through a hole) p. 298.
8. Morin 7.11 (Circular orbit) p. 298.
9. (BONUS) Morin 8.76 (Bouncing under a table) p. 349