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8.012 Physics I: Classical Mechanics Fall 2008

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY Department of Physics

Physics 8.012: Physics (Mechanics) I

Fall Term 2008

PROBLEM SET 3

Collaboration policy: You are encouraged to freely discuss your homework problems with other 8.012 students and teaching staff. However, you must write up your solutions completely on your own—do not simply copy solutions from other students. You are forbidden from consulting solutions from previous years or from the web. Violations of this policy may result in disciplinary action.

Reading: Kleppner & Kolenkow, Chapter 3 & 4

- 0. Collaboration and discussion. Please list the names of all the students with whom you discussed these homework problems.
- 1. Kleppner & Kolenkow, Problem 2.22 [15 points]
- 2. Kleppner & Kolenkow, Problem 2.28 [10 points]
- 3. Kleppner & Kolenkow, Problem 2.30 [10 points]
- 4. Kleppner & Kolenkow, Problem 2.31 [15 points]
- 5. Kleppner & Kolenkow, Problem 2.34 [10 points]
- 6. Kleppner & Kolenkow, Problem 2.35 [10 points]
- 7. Kleppner & Kolenkow, Problem 3.1 [10 points]
- 8. Kleppner & Kolenkow, Problem 3.4 [10 points]
- 9. Kleppner & Kolenkow, Problem 3.5 [10 points]