Physics 21 Problem Set 5

Harry Nelson

due Monday, February 12, In Class

Course Info: The reading this week will be: 1)Review pp. 23-38 (Chapter 1), 2)pp. 75-90 (Chapter 2).

You have a **midterm** on **Wed., Feb. 14** in class. Bring bluebooks, a calculator, pencil(s) and an eraser. One page (2 sides) of notes allowed, otherwise closed-book.

The course web page is `http://hep.ucsb.edu/courses/ph21/`.

Prof. Nelson's office hours: Friday 2-2:50pm 5103 Broida, 4:10-5:30pm in Phelps 1508. Richard Eager's office hours are Monday 2:00-3:00pm, Tuesday 11:00-12:00noon, and Thursday 11:00-12:00noon in Broida 1019 (The Physics Study Room).

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1. K&K Problem 1.20

2. A mass m is at the end of a rope of length $\ell = 1\,\text{meter}$. The rope is used to swing the mass in a circular orbit, in outer space so that gravity is not present. The mass feels a centripetal acceleration equal to g. How long does it take for the mass to make one complete orbit around a cirle?

3. K&K Problem 2.9

4. K&K Problem 2.11

5. K&K Problem 2.29