

ASTR450 Homework # 2 – Central Force Motion  
Due Thursday, February 22

Reading: Danby's Chapter 3. Go over HW #1 with the solution set.

1. Danby: Page 53, Problem 1 (Easy). What is the most general motion that satisfies these constraints?
2. Danby: Page 53, Problem 2 (Easy).  $\mathbf{F} = \mathbf{P}$  is a force.
3. Danby: Page 53, Problem 7 (Easy). Use  $x = Ae^{mt}$  (with  $A$  and  $m$  arbitrary constants) and construct the most general solution in each case.
4. Danby: Page 53, Problem 8 (Moderate). Assume the oscillation frequency  $\omega = \sqrt{k/m}$  with  $k$  constant.
5. Danby: Page 53, Problem 19 (Easy). Write down all speeds in km/s to three or four significant figures and compare.