

PHYSICS 331 ADVANCED CLASSICAL MECHANICS
Problem Set 26

Problem 1

State Kepler's Third Law concerning the period of a planet's orbit around the Sun, and then derive it.

Problem 2

Thornton and Marion: Chapter 8, Problem 39. This problem refers to the Hohmann Manoeuvre. The data in Table 8.1 will be useful.

Problem 3

Work through Example 9-10 of Thornton and Marion. There is no need to submit it. Then, Thornton and Marion: Chapter 9, Problem 20.

Problem 4

Does Newton's Third Law apply in the case where the forces are magnetic? Provide a clear explanation of your response.

Other Things

Read the following sections from A.P. French's *Newtonian Mechanics*: Chapter 12: pages 492–501 (skip/skim accelerometers), 504–511 (skip/skim centrifuges), and 514–530. Part of the last section was covered in class a few meetings ago. Please remember to submit your journal entry.