

Phys 10 Homework 6 (Due Feb 19 at start of class)

Assigned: Assigned Feb 12

(Numbering corrected Feb 17)

Hints: The formula you need for these two problems is on page 133, and “a” in that formula is the average distance or “semimajor axis”, as used in the problem. One “AU” is the average distance between the Earth and the Sun. You need only give your answers to a few percent accuracy.

6.1 Problem 53 from chapter 4 of *The Cosmic Perspective* (page 143)

6.2 Problem 56 from chapter 4 of *The Cosmic Perspective* (page 143)

Hint: Please be careful with problem 56b, the choice of what to use for “a” is slightly tricky.

Comment: Although most of these problems refer to planets and moons, we will discuss in class how a similar analysis reveals mysterious dark matter in the Universe.