

Homework #11
AS101 Summer 2006
Dr. Withers

Assigned: 2006.06.19
Due: 2006.06.21, start of class

1) Read Chapter 11

2) Purpose: Understand interior structure of jovian planets
Earth is made mainly of rock and metal. Most of the rock is in the mantle and most of the metal is in the core. Jupiter contains rock and metal as well. Which layer of Jupiter's interior contains most of the rock? Which layer contains most of the metal?

3) Purpose: Think about the moons of the jovian planets
Name two moons of jovian planets. Describe one feature that you find interesting about each of the moons.

4) Purpose: Understand rings

Which of these statements is most accurate?

- A) Only three of the four jovian planets have rings
- B) Saturn's rings have always been as bright as they are today
- C) Saturn's moons have no effect on Saturn's rings
- D) Ring particles are made mostly of water ice

5) Purpose: Mathematical exercise

Saturn's rings are 250,000 km wide, but only 50 m thick. If the rings could be shrunk so that they are only 10 cm wide, how thick would they be?