

29:52 Exploration of the Solar System
Homework Assignment # 9
Assigned: April 28, 2008
Homework Quiz Due: May 5, 2008, 8 AM

1. A typical interplanetary spacecraft moves through space at about 3 astronomical units per year. A spacecraft is traveling to Jupiter. How long before it arrives at Jupiter does it pass through the bow shock separating the solar wind from the Jovian magnetosphere?
2. Do Problem #1 from Chapter 12, p290 of the textbook.
3. Do Conceptual Question # 15 from Chapter 12, p290 of the textbook.
4. What is the temperature in the atmosphere of Uranus at the point where the pressure is 1 atmosphere. Compare this temperature with (a) the temperature in your room (assuming that you are not an alien from the outer planets who likes it cold), and (b) the temperature of liquid nitrogen.
5. Do Conceptual Question # 18 from Chapter 13, p312 of the textbook.