Weekly assignment 2: Light, the Earth and the Moon
Due: October 10, 2005 at 6:00 p.m.

Distinguish:

1a. Refraction from reflection

1b. Is the Rayleigh scattering referred to in Chapter 4 of the text considered to be refraction, reflection or neither of these?

2. Photon from proton (they’re both particles, but list physical properties that distinguish one from the other)

3a. Light wavelength from light frequency

3b. What quantity connects light wavelength with light frequency?

4a. Semi-major axis of a planetary orbit from orbital period of a planet

4b. Which of Kepler’s Laws of Planetary Motion relates the length of the semi-major axis of a planetary orbit and its orbital period?
5. Gibbous from crescent

6. Find a website that gives an accurate current moon phase. Write down the URL (e.g., http://...etc.). What makes you think that this website is accurate?

7. Sketch the Moon as best as you can. Determine the compass direction you are looking at the moon. Finally, give the date and time of the sketch.

8. Sketch the position of Venus with respect to the horizon just after sunset (after 7 p.m.). Determine the compass direction at which you are looking. Finally, give the date and time of the sketch (don’t forget to label Venus!).