Questions to hand in:

1. Which pair of planets have atmospheres with the most similar chemical composition? (a) Earth and Venus; (b) Earth and Mars; (c) Venus and Mars; (d) Mercury and Mars; (e) Mercury and Venus;

4. Why is Mercury difficult to observe? When is the best time to observe it?

11. Why is it hotter on Venus than on Mercury?

17. During which configuration of planets is it easiest to observe Mars from Earth?

25. Venus takes 440 days to move from greatest western elongation to greatest eastern elongation, but it only needs 144 days to go from greatest eastern elongation to greatest western elongation. With the aid of a diagram, explain why.

30. With carbon dioxide accounting for 95% of the atmosphere of both Mars and Venus, why is there little Greenhouse Effect on Mars today?

38. What IF: Mars had the same mass, surface features, and atmosphere as Earth? In what ways would life there be different than it is here? [Equivalently: What IF Earth were moved to Mars’ orbit, and endowed with a 25° inclination and a sidereal rotation period of 24.62 hr?] In what way would life there be different?