PHYS320, Fall 2015

HOMEWORK SET 9

Due October 22, Thursday

1. The Moon cannot hold on to water vapor (H_2O) or oxygen molecules (O_2) because it is too small. Referring to the example calculation for the Moon done in the lecture, how much more massive would the Moon have to be to retain O_2 ? How much more massive would it have to be to retain H_2O ? Express your answer in units of the Moon's mass.

2. Suppose you observed a lunar eclipse on the evening of August 28. When will you likely see a solar eclipse?

3. Why do we never see annular lunar eclipse?

4. What would be the chance to find an annular eclipse if the Moon were farther, closer, larger, smaller than it is now?