Study and be prepared: 1-26, except “Interactive Questions.”

**Turn in:**


2. Which of the following planets does NOT have rings? Choose only one. (a) Mars; (b) Uranus; (c) Neptune; (d) Saturn; (e) Jupiter.

9. What is liquid metallic hydrogen? Which planets contain this substance? What conditions produce this form of hydrogen?

16. Why do features in Saturn’s atmosphere appear much fainter and “washed out” than comparable features in Jupiter’s atmosphere?

17. Explain how shepherd satellites affect some planetary rings. Is “shepherd satellites” an appropriate term for these objects? Explain your answer.

26. Explain why Triton will never collide with Neptune, even though it is spiraling toward that Planet.

37. What IF: Jupiter, at its present location, were a star? What would Earth be like? (Hint: Recall that to be a star, Jupiter would have to have 75 times more mass than it has today.) [To make the question a little less open-ended, let’s give it a mass of 0.1 times that of the Sun, which is 100× its current mass. Such a star will have a light/heat output of 0.001 that of the Sun.]