Review for Exam 1

1. Review the Summary at the end of each chapter (pp.9-10, 30-32, 49-51) and the quizzes.
2. What is an astronomical unit?
3. What is a light year? A parsec?
4. What is the Milky Way?
5. What is the difference between a planet and a star? What is the name of our star?
6. Officially, how many ***planets*** are now in our solar system?
7. What are aphelion and perihelion?
8. There are 88 constellations. How many of these are part of the Zodiac? What is the difference between a constellation and an asterism?
9. You should be able to name at least four constellations that are part of the Zodiac, and four other constellations.
10. What is a pseudoscience? Name one.
11. Which is brighter, a -4.0 magnitude star or a +4.0 magnitude star?
12. What is corresponding flux ratio for two stars that have a magnitude difference of 5.0?
13. You should know the apparent visual magnitude of the following objects: The Sun, the Moon, Venus, Sirius, Polaris, the naked eye limit and the Hubble Space Telescope limit (p.16).
14. You should be able to explain where the following are on the celestial sphere: horizon, zenith, north and south celestial poles, celestial equator.
15. What is the ecliptic? What is the relationship between the ecliptic and the Zodiac?
16. What is a circumpolar constellation?
17. In the northern hemisphere, which way do the stars seem to revolve around the north celestial pole?
18. Describe the general motion of the stars and planets over the course of the evening.
19. Which planets always appear in the sky at sunset or sunrise? Explain why this is true.
20. Explain why the seasons occur.
21. What is the difference between revolution and rotation?
22. What is precession? How does it affect our view of the night sky?
23. What is the Milankovitch Hypothesis? What three factors go into the Milankovitch Hypothesis? What does it attempt to explain?
24. What is a sidereal period? What is a synodic period?
25. You should be able to explain and/or describe the following:
    a. The phases of the Moon
    b. Lunar and solar eclipses
    c. Total vs. Partial eclipses
    d. Line of Nodes

26. Describe the proper ways of viewing a solar eclipse.
27. What would an astronaut standing on the Moon see during a total solar eclipse?
28. Why isn't there a lunar or solar eclipse every month?
29. What is an eclipse season? Why is it significant in predicting eclipses?
30. What is a Saros cycle?
31. Explain why similar solar eclipses occur every three Saros cycles.