

Physics 1311  
Spring 2020  
Homework/Study 1 (Two-sided)

Chapter 0

1. What **determines** the location of the ecliptic in the sky?  
("Determines" means makes it the way it is)
2. What **determines** the location of the North Celestial pole in the sky? ("Determines" means makes it the way it is)
3. Suppose you are outside at midnight and see the Moon setting. What is the Moon's phase?
4. What is blocking the light from the dark side of a quarter Moon? (Remember the model in class...)
5. What is the Prime Meridian and where can you actually see it?
6. There is something that **indicates** the approximate position of the North Celestial Pole. What is it?
7. 12 minutes of arc is what fraction of a degree?
8. Which celestial coordinate is the analog of longitude on Earth? Analog of Latitude?

9. Suppose the parallax of a star is measured to be 0.058 arcseconds. Find its distance in parsecs. (Very simple - involves one calculator operation.)
  
10. We say that we can never prove that a hypothesis is correct. Why is this actually true? Why can't we prove correctness?
  
11. What is an equinox and when do they occur?
  
12. If the Moon's orbit radius was 10% smaller than it is now, what effect would this have on solar eclipses?
  
13. What is the center of the celestial coordinate system (RA and Declination)?