Sky & Telescope Sky-Gazer’s Almanac Assignment
All questions refer to the night of ________________

1. How many hours of nighttime (between sunset and sunrise) will there be?

2. What is the earliest time (what time will your clock say?) that you would expect the sky to be quite dark and dimmer celestial objects to be visible? I.e., when does evening twilight end?

3. (a) Circle the planets that will be in the sky at some time between sunset and sunrise.

   Mercury   Venus   Mars   Jupiter   Saturn
   Uranus    Neptune

   (b) Circle the planets that will be in the sky at some time between the end of evening twilight and the beginning of morning twilight.

   Mercury   Venus   Mars   Jupiter   Saturn
   Uranus    Neptune

   (c) Assuming it is clear, do you expect that you could see the planets you have listed in (a) and (b) by going outside at the right time for that planet? Why or why not?

4. (a) Will the moon rise or set between sunset and sunrise? (Circle one.)
   (b) At what time? (what time will your clock say?)

   (c) Why is the time for only moonrise or moonset given, not both?
6. Name one other event of astronomical interest that will occur that night. Include the time.

5. Conjunctions & Oppositions -- not usually on the date given at the beginning.
   (a) Find a visual conjunction this quarter (if possible).
   • Which 2 planets will appear close together?

   • What date and time (chart time is OK) will this happen?

   (b) Find a time this quarter (if possible) when the lines for 2 different planets intersect, but it is not labeled a conjunction.
   • What date and time (chart time is OK) will this happen?

   • Which 2 planets are involved?

   • Why isn't this event a conjunction?

   (c) Find an opposition this quarter (if possible).
   • Which planet is at opposition?
     
     Mercury   Venus   Mars   Jupiter   Saturn
     Uranus    Neptune

   • What date and time (chart time is OK) will this happen?

   (d) Where in the sky would you look for the planet when it is at opposition? Be as specific as possible.