

Due December 7

AST101 Takehome Quiz #8,9(worth 10 pts)

For full credit, be sure to include proper units, as well as E, W, a.m., p.m. when appropriate with your answers.

Name _____

G = Greenwich
☉ = sun (mean)
L = local position (you)

1. Using the diagram at right, what is the Local Mean Solar Time (LMT)? Remember to use a.m. or p.m.

2. Using the same diagram, what is the Greenwich Mean Solar Time (GMT)?

3. From the same diagram, what is your longitude (local position)? Be sure to indicate East or West.

4. Using the second diagram at right, what is the Local Mean Solar Time (LMT)? Remember to use a.m. or p.m.

5. Using the second diagram, place a "G" so that the Greenwich Mean Solar Time (GMT) is 10 p.m.

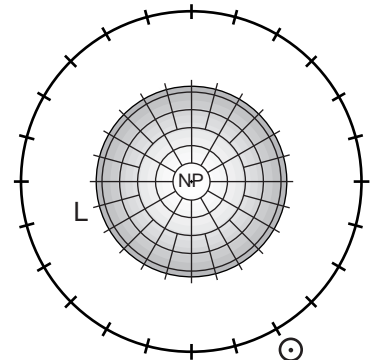
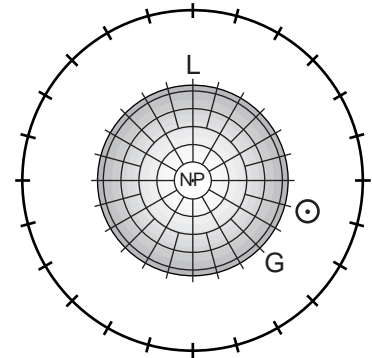
6. From the second diagram, what is your longitude (local position)? Be sure to indicate East or West.

7. What is the longitude of a location where the LMT is 1 a.m. and the GMT is 9 a.m.? (Longitude must be between 0° and 180° E or W.)

8. What is the longitude of a location where the LMT is 7 p.m. and the GMT is 4 a.m.?

9. The GMT is 12 noon. What is the LMT at longitude 105°E?

10. On September 21, what time (LMT) does the sun transit for longitude 45°E?



Use the following blank diagrams for scratch, if needed. Additional blanks are available on class website.

