

**Due December 8**

# AST101 Takehome Quiz #10

*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, what is the Greenwich Mean Solar Time (GMT)?

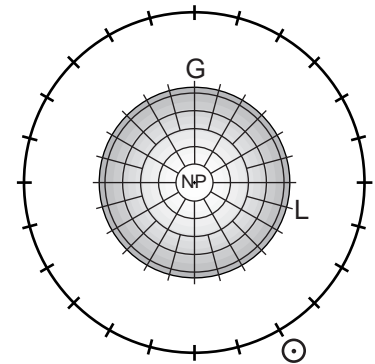
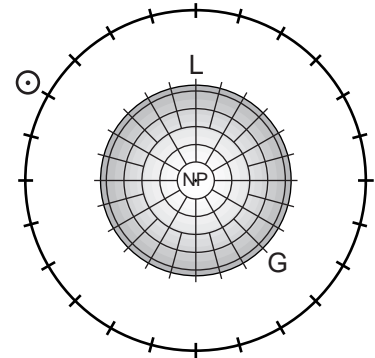
6. From the second diagram, what is your longitude (local position)? Be sure to indicate East or West.

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

8. What is the longitude of a location where the LMT is 7 p.m. and the GMT is 3 a.m.? Answer must be between 0° and 180° E or W.

9. The GMT is 12 noon. What is the LMT at longitude 135°W?

10. On March 21, what time (LMT) does the sun transit for longitude 90°E?



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

