

AST101 Take-home #2 — The Planisphere

Due September 25 at beginning of class.

In answering the following questions, be sure to use the **transparent grid with your planisphere, when appropriate. All times refer to **local time (non-daylight)**.**

Name: _____

1. What bright star is about to set near the west-southwest on August 15 around 9 p.m.?
2. The bright star Arcturus in Bootes sets about what time on September 15? (remember to include a.m. or p.m.)
3. In what direction does the star Arcturus set? (To the nearest 16th of a circle: N, NNE, NE, ENE, E, and so on.)
4. What time on July 15 is the bright star Antares due south (closest to the south horizon)? (remember a.m. or p.m.)
5. What is the altitude (in degrees) of the bright star Rigel in the constellation Orion at 5 a.m. on October 5?

6. What is the azimuth (in degrees) of Rigel at 9 pm. on February 10?
7. The stars on December 20 at 8 p.m. are in the same position as they are at what time on September 20? (remember a.m. or p.m.)
8. How many hours does the bright star Altair spend above the horizon?
9. Carefully set the planisphere to match the position of the stars on the September map passed out in class. What time does the planisphere indicate for today's date (Sept 18)?
10. What time does the sun set on March 21? (Pisces equator/ecliptic crossing)