

SCORE  
(5 pts max)

ASTRONOMY 2  
THIRD HOUR SESSION "L"  
ACTIVITY: Online Astronomy

NAME KEY-L

DATE

ID#

If it is the Spring Semester, then go to your third hour as normal.

However, If this third hour is done in the Fall Semester, THIS SHOULD BE DONE DURING THE WEEK OF THANKSGIVING: Because of the shortened week, the third hours on Thursday are not available. If you cannot make it to another Third Hour, this exercise may be done outside of class and turned in to the White Box by Wednesday at 5PM.

1. On the internet, go to the textbook website [http://highered.mheducation.com/sites/0073512184/student\\_view0/index.html](http://highered.mheducation.com/sites/0073512184/student_view0/index.html) (that is correct; this is not the site for your Astronomy 2 text). Click on the cover of the 6<sup>th</sup>-edition book. You'll be directed to home page of the 6<sup>th</sup> edition book. On this choose the Student Edition link. You should be taken to a page which has an interactive constellation map link (We'll call this the Student Edition Home Page). Select the link. On the constellation map that appears, which constellation is nearest the zenith?

Hercules or Corona Borealis

2. Go back to the Student Edition Home Page. In the upper left hand corner, click on the Interactives link. Then scroll down and choose the link Eclipse Interactive (110.0K). If the Earth-Moon distance is set at 399,000 km and the Moon size is set to 94%, what type of solar eclipse (total or annular) will you have. (Keep the tilt set at zero)?

Annular

3. Go back to the Student Edition Home Page. Click on the Astronomy Timeline link. What year did Horace Babcock propose a model for the sunspot cycle?

1961

4. Go back to the Student Edition Home Page. Click on the Picture of the Day link. Then choose the link Astronomy Picture of the Day and choose the one that corresponds to Monday of this week. What object is pictured?

Whirlpool Galaxy

5. Go back to the Student Edition Home Page. Once again click on the Interactive link. The scroll down near the bottom and choose the link Extra Solar Planets Interactive (135.0K). Click the button labeled Hot Jupiter. Set the eccentricity to 0.02, the semi-major axis to 1.00 AU, the inclination to 88° and the Mass of the Star to 1 Solar Mass. Look under the graph and change the Graph Scale to 150%. Now Press Go. About at what speed does the star move?

33 m/s ( $\pm 7$  m/s)

(Questions continue on back)

6. The next website lies at <http://skyandtelescope.com/>, Sky and Telescope magazine's homepage. On the navigation bar find the "Observing" link and then the "This Week's Sky at a Glance" link. List an event happening on Tuesday of this week.

•The crescent Moon hangs in the west-northwest at dusk near Mars and Beta Tauri (which is to Mars's left), and very close to or even on top of 3rd-magnitude Zeta Tauri.

Will the Moon occult Zeta for your location? It will if you're in Florida or the deep south (where the Moon will be low in darkness), the mid-south (with the Moon higher in twilight), or much of Mexico and Central America. See [map and timetables](#) from IOTA

7. Continuing with the "Sky and Telescope" web site, under the Equipment link select "Choosing your Equipment". Then under that link, choose "Telescope". You be taken to a new page. Find and select the link "How to choose aTelescope". Another new page comes up. Read the article. What does the author say is the most important characteristic of the telescope?

Aperture or Diameter of the Objective

8. Go to <http://www.nightskies.net/almanac/chooser.html>. Then open up the Java applet (by selecting the first "Click Here"). Select the country as USA. Select the location to Sacramento, CA. Change the date to Wednesday's date this week. If this is the Fall Semester, make sure Daylight Saving is turned off (uncheck the box). When will the Sun rise? [Must select country first, before selecting city. There will a significant delay when USA is selected. Make sure to hit Calc after changing date.]

6:01 am (±2 minutes)

9. Now go to <http://www.universetoday.com> , the latest Astronomy news. Click on one of the most recent articles. What is the title and date given for this article?

Date from 05/06 to 05/10	Varies with day and time
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10. Finally, go to <http://www.space.com/news>. Under the heading of Space News you will see a recent story. Click on the story and write down the date given and give the title of the news story.

Date from 05/06 to 05/10	Varies with day and time
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