

SCORE  
(5 pts max)

**ASTRONOMY 5  
THIRD HOUR SESSION "I"**

**ACTIVITY: Other Tools of Astronomy:  
Planispheres and Centerfolds**

NAME KEY-I

DATE

ID#

Planispheres

1. The planisphere rotates about the ? which is approximately in the location of the star ?.

North Celestial  
Pole

Polaris

2. When facing north, which way should you rotate the planisphere to correspond with the movement of the stars with increasing time?

Counterclockwise

3. The imaginary line that runs from the north point to the south point on the planisphere window is referred to as the ?.

Meridian

4. On December 15 at 12 midnight, facing south, what constellation is on the meridian and the celestial equator?

Orion

5. What time does the star Capella rise on September 15 ?

8:45 PM ( $\pm$  20 minutes)

6. What time does the star Vega transit on May 15 ?

3:00 AM ( $\pm$  15 minutes)

7. What time does the star Altair set on November 23 ?

10:00 PM ( $\pm$  20 minutes)

8. What date does the star Procyon rise at 10:00 pm ?

November 10 ( $\pm$  4 days)

9. What date does the star Sirius set at Midnight ? Use South

March 20 ( $\pm$  5 days)

10. What star is rising on February 10 at 10:00 pm ?

Arcturus

(Questions continue on back)

**Centerfolds (Magazine Star Charts)**

11. As the days progress into the future, a given sky configuration will remain the same in the planisphere window and magazine star charts for (earlier, the same, later) times.

Earlier

12. The star chart is centered on the   ?   and the outside edge corresponds to the   ?  .

Zenith	Horizon
--------	---------

13. An object located halfway between the center and the edge of the star chart will be   ?   degrees above the horizon.

45

14. The times for using these star charts become earlier in the evening for dates later in the year. This is due to the revolution of the   ?   around the   ?  .

Earth	Sun
-------	-----

15. What object is located on the star chart at coordinates approximately   0   degrees azimuth, and   40   degrees altitude?

Polaris

**Compare to *Starry Nights***

16. Answer question   5   using *Starry Nights*. Note: *Starry Nights* should be set to Standard Time. Set time to 9 PM PST.

7:50 PM ( $\pm$  4 minutes)

17. Using *Starry Nights*, change the location to   San Diego  . Now answer question 16 again. Note: *Starry Nights* should be set to Standard Time. Set time to 9 PM PST.

8:33 PM ( $\pm$  4 minutes)

18. Is the planisphere result from question   5   closer to the results from question 16 or to question 17?

17