**ASTRONOMY 5
THIRD HOUR SESSION "M"**

Review of Third Hour

NAME | KEY- M

DATE | ID#

Scales:

1. If we represent the sun as a Grapefruit of diameter __10.0__ cm, How big would Jupiter be? How big would the Earth be?

| 1.03 (± 0.03) cm | 0.0918(± 0.018) cm |

Star Charts:

2. What are the Dec and RA of __Algol_ in the constellation of __PERSEUS__. What type of star is it?

| +41° (± 1°) | 3h 05m (± 5 min) | variable |

3. In what constellation does the sun appear on ___June 2_ .

| Taurus |

4. What named star on the SC001 chart is on the meridian at noon on __Jan 1__?

| Vega |

5. If the Full moon is in the middle of ___PISCES__ what month must it be?

| October |

HR diagrams: (Use only the HR diagram handout to answer these questions.)

6. Three stars—a AⅤ, GⅠ, and a KⅤ—are all in the same distant cluster. Which star appears_redder__? Which is __brighter__?

| KⅤ | GⅠ |

7. What is the approximate luminosity of a ___10000 kelvins_____ star?

| 100 $L_\odot$ |

8. Given that the main sequence lifetime of a star is (M/L)x10^{10} years, where M and L are given in solar units (M_{sun}, L_{sun}), what is the lifetime of a 5800K main sequence star? What about a 10 M_{sun} star?

| 10^{10} years | 10^8 years |

9. Refer to your Cosmic Object list on Final—in which region(s) on the HR diagram would you expect to find the star at the center of ___M45____?

Region 4 to Region 9

Planispheres:

10. What time does ____Altair set__ on ____December 9____?

9:00 pm (± 20 min)

11. What date does __Regulus rise____ at ___9 pm__?

December 30 (± 5 days)

Starry night:

12. Answer question _10_ again. Set Starry Night to PST. Set time to 8 pm.

9:13 pm (± 5 min)

13. Answer question __11_ again. Set Starry Night to PST. Set time to 9:30 pm.

December 28 (± 1 day)

14. What is the apparent magnitude of __Denebola___ ? What constellation is it in?

2.12	Leo

Deep Sky Objects on Final:

15. Which lettered posters (A-G) portray objects on your list of "Deep Sky Objects for final?"

6 (A,B,C,E,F,G)

16. How many of those pictured in #15 could be found above the horizon on _January 10_ at __10 pm PST_ ?

4 (A,B,C,E)