DUE: Monday, Feb 11 by 11 am

READING: OA – Chapter 6

HELP SESSION: Friday, 1:30-3:00 pm

ASSIGNMENT: Answer the questions below. Show your reasoning where appropriate, such as for numbers 1, 4, 6, 7, 8, 9.

NEXT WEEK:

READING:
1. OA – chapter 8a (Light Detectors): p 145-152 (read) – eye, & photography, pp 152-159 (read/skim), 159 (CCD – read), 165-168 (read)

We will discuss these at our regular Monday 3:05 pm meeting.
I will plan to hand out Observing Exercise 2: CCD Observing
In the evening, we will plan to go out to the Observatory for instruction on how to use the CCD, and then sign-up for observing. THIS WILL BE DECIDED IN LIGHT OF WHERE WE ARE IN OBSERVING ASSIGNMENT 1.

Q 1-6 MULTIPLE CHOICE REVIEW QUESTIONS
1. If you double the diameter of a telescope you
   (a) double the collecting area
   (b) double the minimum angular separation that can be resolved.
   (c) halve the minimum angular separation that can be resolved
   (d) multiply by 4 the minimum angular separation that can be resolved

2. Which is not true of refracting telescopes?
   (a) They suffer from chromatic aberration.
   (b) The lens may sag.
   (c) Bubbles in the glass are not a potential problem.
   (d) Light is lost in transmission through the glass.

3. Which is not true of reflectors?
   (a) They are free of chromatic aberration.
   (b) Bubbles in the glass are a problem.
   (c) The objective can be supported in the middle of the back.
   (d) Some light is blocked by the secondary mirror.

4. On a given night the seeing is 1 arc sec. For what size telescope is this also the limiting resolution?
   (a) 1 cm
   (b) 10 cm
   (c) 1 m
   (d) 5 m.

(continued on back)
5. Which of these features of a telescope is most easily changed?
   (a) Resolution
   (b) Light gathering power
   (c) Field of view
   (d) Magnification.

6. Suppose we have two cameras with the same aperture, but with the lens of one having a longer focal length than that of the other. If we use the same exposure time to take a picture with each camera, the image on the picture from the camera with the longer focal length will be
   (a) brighter and larger
   (b) brighter and smaller
   (c) fainter and larger
   (d) fainter and smaller.

7. OA – Ch 6-1

8. OA – Ch 6-2

9. OA – Ch 6-5