6. What are the three main functions of a telescope?

7. What is meant by the angular resolution of a telescope?

13. Why must astronomers use satellites and Earth-orbiting observatories to study the heavens at X-ray wavelengths?

15. Why did Rømer’s observations of the eclipses of Jupiter’s moons support the heliocentric, but not the geocentric, cosmogony?

17. The observing cage in which an astronomer sits at the prime focus of the 5-m telescope at Palomar Observatory is about 1 m in diameter. What fraction of the incoming light is blocked by the cage?

20. Suppose your Newtonian reflector has a mirror with a diameter of 20 cm and a focal length of 2 m. What magnifications do you get with an eyepiece whose focal length is: (a) 9 mm; (b) 20 mm; and (c) 55 mm?