NOT TO BE TURNED IN!
Complete and understand the Review and Discussion questions and the Problems to prepare for the quizzes.

Review and Discussion:

Q1. List three advantages of reflecting telescopes over refracting telescopes.

Q3. How does Earth’s atmosphere affect what is seen through an optical telescope?

Q9. What is interferometry, and what problem in radio astronomy does it address?

Q14. What are the main advantages of studying objects at many different wavelengths of radiation?

Problems:

P3. A 2-m telescope can collect a given amount of light in one hour. Under the same observing conditions, how much time would be required for a 6-m telescope to perform the same task? A 12-m telescope?

P4. A certain space-based telescope can achieve (diffraction-limited) angular resolution of 0.05” for red light (wavelength 700 nm). What would its resolution be (a) in the infrared, at wavelength 3.5 μm, and (b) in the ultraviolet, at wavelength 140 nm?