

## What You Should Know from “Lenses, Ray Tracing and Telescopes”!

- 1.) What is a convex lens? Be able to draw a sketch of one.
- 2.) In a lens system, what is the principle axis?
- 3.) How is the focal point defined for a convex lens?
- 4.) What happens when parallel light rays through a convex lens?
- 5.) Be able to ray trace from an object outside the focal point of a convex lens?
- 6.) Be able to ray trace from an object inside the focal point of a convex lens?
- 7.) For the amusement of it, what is the device called when a convex lens is used and an object is placed inside its focal length?

- 8.) On a refracting telescope, the end-lens should be as large as possible. Why?
- 9.) The answer to Question 8 puts what constraint on the production of that lens?
- 10.) So why are refracting telescopes always long?
- 11.) What is the diameter of the Palomar Telescope?
- 12.) What amazing thing can you tell me about the Palomar telescope that has to do with its light-gathering ability?
- 13.) What did the city of San Diego do to accommodate the dark-sky needs of the Palomar telescope?