

Chapter 20

CHAPTER REVIEW

● Mirrors and Lenses

Part A. Vocabulary Review

In each of the following statements, a key term has been scrambled. Unscramble the term and write it on the line provided.

- _____ 1. Light in which transverse waves vibrate only in one plane is *razopidel*.
- _____ 2. A *relsa* reduces a light source to the size of a single atom.
- _____ 3. A *accevo rirorm* resembles the inside of a spoon.
- _____ 4. A simple *tarrigefcn* telescope uses two convex lenses.
- _____ 5. A *dewi-glena* lens produces an image that includes much of its surroundings.
- _____ 6. *Vocenac* lenses are thinner in the middle than at the edges.
- _____ 7. *Conntheire* light rays spread out as the light travels.
- _____ 8. The *clofa notip* is the point on the optical axis that all light rays reflected from a concave mirror pass through.
- _____ 9. A *nepal irrmor* has a flat reflecting surface.
- _____ 10. A *pocormecis* is used to magnify very small, close objects.
- _____ 11. A *loothsept* lens is used for photographing people's faces from a distance.
- _____ 12. *Vexnoc* lenses are thick in the middle and thin at the edges.
- _____ 13. *Tolacip bresif* are thin strands of glass that can carry laser light.
- _____ 14. The distance from the center of a concave mirror to its focal point is the *cofal gentlh*.
- _____ 15. The type of telescope that uses a lens and two mirrors is a *tergifelnc* telescope.
- _____ 16. A *tulivar geami* cannot be projected on a screen.
- _____ 17. A *noxeoc orrrmi* has a reflecting surface that curves outward.
- _____ 18. *Hortence* light rays spread out very little.
- _____ 19. *Attlo rennalit fonelicert* makes transmission of light through optical fibers possible.
- _____ 20. A *lear megia* can be projected on a screen.

Chapter 20 Review (continued)

Part B. Concept Review

Match the items in Column II with the terms or phrases in Column I. Write the letter of the correct term in the blank on the left. The items in Column II may be used more than once.

Column I

- _____ 1. reflecting surface that curves outward
- _____ 2. used to make a magnifying glass
- _____ 3. reflecting surface that curves inward
- _____ 4. flat reflecting surface
- _____ 5. thin in the middle and thick at the edges
- _____ 6. refracts light rays away from each other
- _____ 7. reflects and spreads light
- _____ 8. used to correct farsighted vision
- _____ 9. used in car headlights
- _____ 10. produces a reversed, erect image

Column II

- a. convex mirror
- b. concave lens
- c. plane mirror
- d. convex lens
- e. concave mirror

Supply the term or terms needed to complete each of the following statements.

- 11. A simple _____ telescope uses two convex lenses to gather and focus light from distant objects.
- 12. In a _____, a convex lens gathers light and projects an image on light-sensitive film.
- 13. The Hubble Space Telescope is designed to detect radiation that is usually absorbed by Earth's _____.
- 14. The Hubble Space Telescope will help humans determine whether there are _____ circling distant stars.
- 15. Optical fibers are most commonly used in _____.
- 16. Light reflected from a horizontal surface is partially _____ horizontally.
- 17. A refracting telescope has an objective lens and a(n) _____ lens.
- 18. The _____ is the optical instrument that operates most like the human eye.
- 19. Sunglasses with polarized lenses are designed to reduce _____.
- 20. The condition in which all the light that enters an optical fiber remains inside the fiber is called _____.