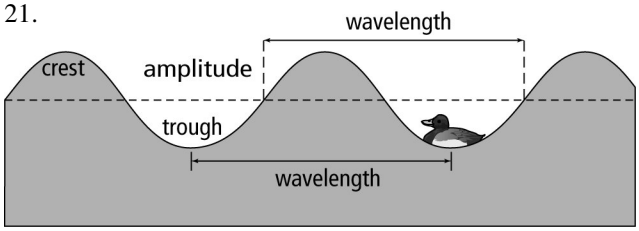
Unit 2 BLM Answers

BLM 2-39, Unit 2 Test

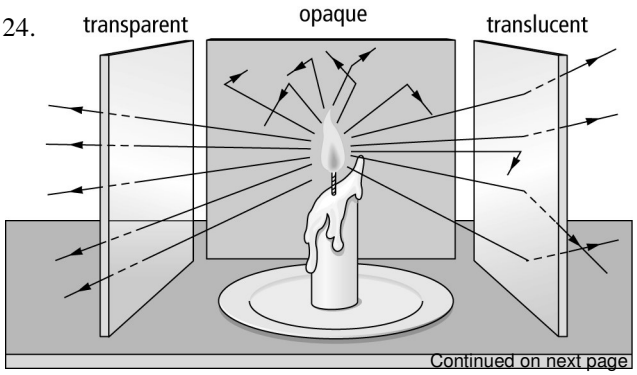
1. C
2. D
3. C
4. D
5. A
6. D
7. D
8. D
9. D
10. A
11. E
12. C
13. L
14. D
15. B
16. F
17. G
18. A
19. J
20. I
21.



22. (a) 1 Hz
    (b) 3 Hz
    (c) 0.1 Hz

23. Students' answers may vary but could include the following:
    (a) dental images of cavities
    (b) night vision goggles
    (c) radar used to show the flight paths of aircraft

24.



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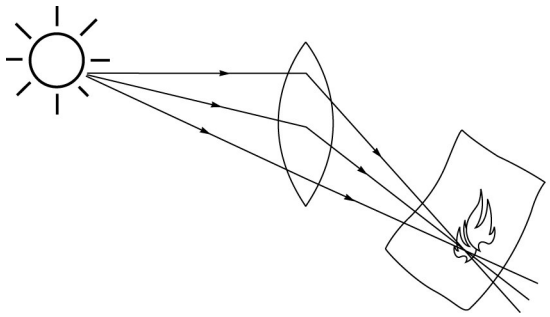
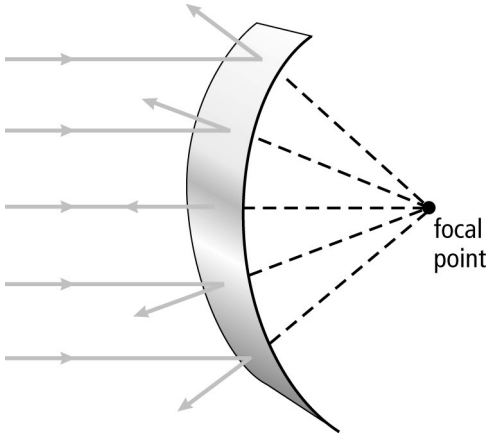
25.

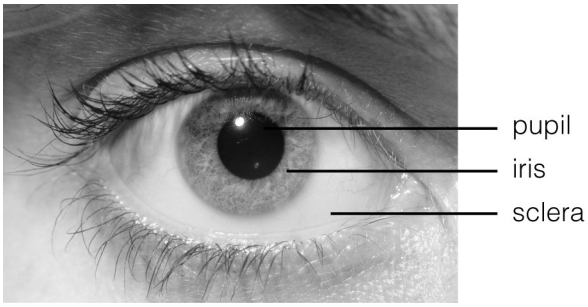


26. (a)



(b) Students' answers may vary but could include security mirrors in convenience stores and also in some elevators.

27.



28. The goggles hold a layer of air in front of the eyes. The diffraction at the cornea is correct when there is an air/cornea boundary. When water is substituted for the air, the diffraction changes and the cornea can no longer focus the light.

29. Students' answers may vary but could include the following: Both allow objects to be viewed with magnification. Both use at least two lenses. In the microscope, the object being viewed is moved back and forth to bring it into focus. For the telescope, the eyepiece is moved in order to bring the object into focus.

30. (a) All light waves have the same wavelength. All the crests and troughs of the light wave are lined up.
(b) Students' answers may vary but could include the following: Different wavelengths of laser light are used for the different signals. These can easily be separated out again at the other end of the cable.