

# 4-1 Review and Reinforcement

## Radiant Energy

Complete the following sentences in the space provided.

1. The speed of light is \_\_\_\_\_ meters per second.
2. All waves can be described in terms of their amplitude, wavelength, and \_\_\_\_\_.
3. A beam of blue light has a wavelength of 595 nm. Its frequency is \_\_\_\_\_  $s^{-1}$ .
4. Early in this century, scientists found that light has the characteristics of both waves and \_\_\_\_\_.
5. The \_\_\_\_\_ of a wave is the number of complete waves passing a fixed point in a given time.
6. The wavelength of microwave radiation is \_\_\_\_\_ the wavelength of visible light.
7. The color of visible light that has the longest wavelength is \_\_\_\_\_.
8. A heat lamp produces \_\_\_\_\_ radiation.
9. A wave with a high frequency has a \_\_\_\_\_ wavelength.
10. The brightness of light depends on the \_\_\_\_\_ of the light wave.

Fill in the following chart concerning electromagnetic radiation.

	Type of Radiation	Description of wave
↑ Increasing Wavelength	11. _____	These waves have a long wavelength and a low frequency.
	12. _____	
	13. _____	
	14. _____	These are colors of the visible spectrum. (wavelengths between 750 and 400 nm.)
	15. _____	
	16. _____	
	17. _____	
	18. _____	
	19. _____	
	20. _____	
	21. _____	
	22. _____	
	23. _____	