

**CONCEPTUAL PHYSICAL SCIENCE EXPLORATIONS**
**Chapter 13 Waves and Sound**
*Vibrations and Waves*

1. A sine curve that represents a transverse wave is drawn below. With a ruler, measure the wavelength and amplitude of the wave.



a. Wavelength = \_\_\_\_\_

b. Amplitude = \_\_\_\_\_

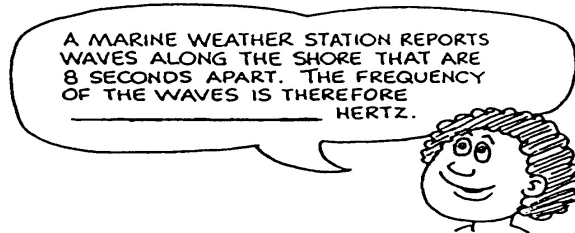
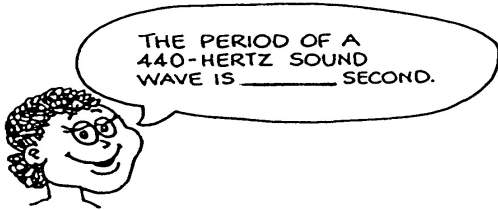
2. A kid on a playground swing makes a complete to-and-fro swing each 2 seconds. The frequency of swing is  
(0.5 hertz) (1 hertz) (2 hertz)

and the period is

(0.5 second) (1 second) (2 seconds)



3. Complete the statements.



4. The annoying sound from a mosquito is produced when it beats its wings at the average rate of 600 wingbeats per second.

a. What is the frequency of the sound waves?

\_\_\_\_\_

b. What is the wavelength? (Assume the speed of sound is 340 m/s.)

\_\_\_\_\_

