Waves 2 Worksheet **Name:**

Use your textbook to answer the following questions (front and back), but you must work alone and your answers must be written in your own words. Don't forget to use **complete sentences!!**

Section 2 use pages 10- 13

1. What are the four (3) basic properties of a wave?

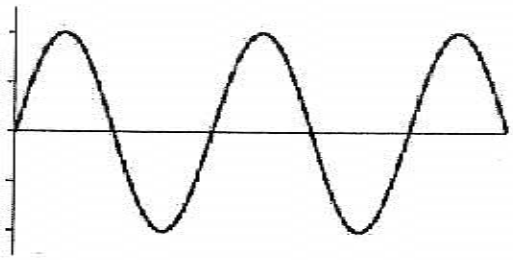
2. What does amplitude measure?

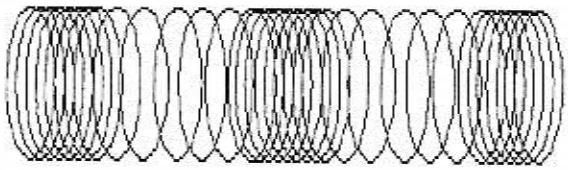
3. The amplitude of a transverse wave is the distance from the _____ _____ to a _____ or to a trough.

4. The amplitude of a longitudinal wave is a measure of how _____ or _____ the medium becomes.

5. Look at **Figure 7** in the textbook on page 20. Read the captions that go with the picture.
   a. Which longitudinal wave shown has the larger amplitude? _____

6. Label the amplitude in the following diagrams.





7. Define wavelength.

8. How can you find the wavelength of a transverse wave?

9. How can you find the wavelength of a longitudinal wave?

10. Label the wavelengths of each wave.

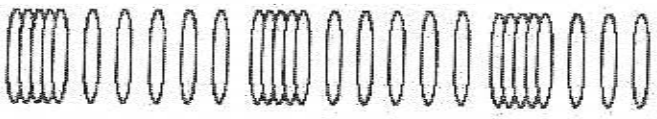


Figure 1: Longitudinal Wave

Figure 2: Transverse Wave

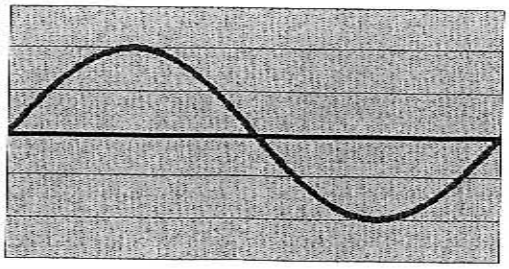
11. What is frequency?

12. What are the units of frequency?

13. Write the three formulas located on page 22 for frequency, speed, and wavelength.

14. If a wave is traveling at 60 cm/second and has a wavelength of 15 cm, what is the **frequency**?

15. On the diagram below, indicate with an arrow the distance that represents the **wavelength** of the wave. With another arrow indicate the distance that represents the **amplitude**.



16. How many complete waves are there in the diagram above? Is it transverse or longitudinal?