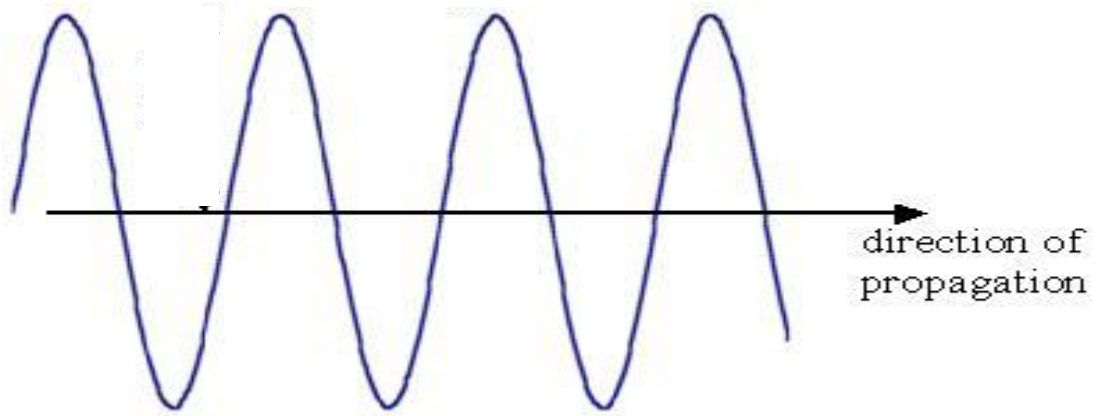


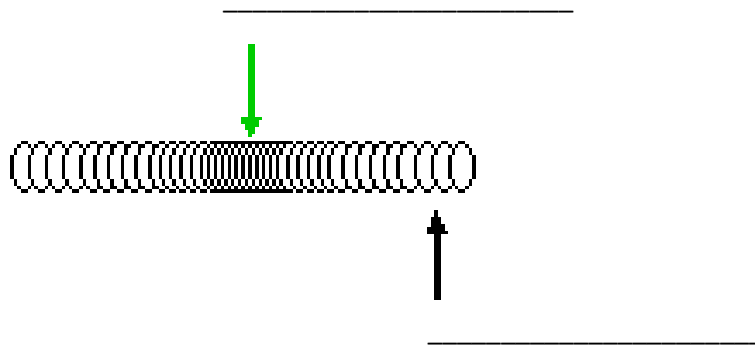
1. Look at the Sine Curve (transverse wave) below and label the parts and determine the Wavelength and Amplitude. Wavelength : Amplitude: Crest : Trough: Midline



Determine the Wavelength _____ and Amplitude _____ of the above wave.

This wave is an example of a _____ (light, sound) wave.

2. In the wave below, determine the names of the two areas identified with arrows.



This wave is an example of a _____ (light, sound) wave.

3. The formula $V = f \times \lambda$

The V stands for _____

The "f" stands for _____

The " λ " stands for _____

4. A kid on a playground swing makes a complete "to-and-fro" swing every 3 seconds.. The frequency of the swing is: _____ and the period is: _____

5. A hummingbird beats its wings at a rate of 1200 wingbeats per second.

a. What is the frequency of the sound waves? show work or explain answer

b. What is the wavelength. (sound has a velocity of 345 m/s) show work or explain answer

6. You are standing in the ocean and observe the distance between waves to be about 2 meters. If the waves pass you at a rate of two crests per second, what is the speed of the wave? Show work

What is the period of the wave. Show work

7. Explain the Doppler Effect. Give two different examples.

8. Explain how you hear sound and what is the range of frequencies that you are able to hear?