**Section 1-1 and 1-2 Quiz Study Guide**

**Fill in the triangle and write out the four steps to solve the problems.**

1.

2.

3.

4.

**Give me an example of a unit of measurement that can be used in your answer for each of the following.**

Speed =

Wavelength =

Frequency =

**If a wave travels at 672 cm/s and has a frequency of 32Hz, its wavelength would be?**

1. 3.
2. 4.

**If the wavelength of a wave is 40cm and its speed is 250cm/s what is its frequency?**

1. 3.
2. 4.

**A wave on a guitar has a frequency of 18Hz and a wavelength of 26m. What is its speed?**

1. 3.
2. 4.

**The speed of a wave on a rope is 255cm/s and its wavelength is 30cm. What is the frequency?**

1. 3.
2. 4.

The speed of a wave on a guitar string is 560m/s and the frequency is 28000 Hz. What is the wavelength of the wave?

1. 3.
2. 4.

**Draw a transverse wave and label:**

Rest position, amplitude, wavelength, crest and trough

**Draw a longitudinal wave and label:**

Rarefaction, compression, wavelength

**Write the correct word that goes with the following definitions:**

1. A wave that vibrates the medium at right angles or perpendicular to the direction in which the wave is travels. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A repeated back and forth or up and down motion**.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. A wave that requires a medium through which to travel. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. A wave that is the combination of a transverse wave and a longitudinal wave (it occurs at the surface between two mediums). \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. A disturbance involving the transfer of energy from place to place. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. A wave in which the particles vibrate the medium in the same direction in which the wave travels (parallel). \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. How far the wave travels in a given amount of time. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. The maximum distance the medium vibrates from the rest position (rest to crest or rest to trough) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Material through which a wave travels. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. The number of waves that pass a given point in a certain amount of time. \_\_\_\_\_\_\_\_\_\_
11. The distance from any point on a wave to an identical point on the next wave. (crest to crest, trough to trough, compression to compression).

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