

1. Wave velocity is a product of \_\_\_\_\_ and \_\_\_\_\_.

- A. Wavelength and Phase angle
- B. Frequency and Wavelength
- C. Phase Angle and Frequency
- D. Amplitude and Frequency

2. The calculation for a period of a wave (T) is indicated as the formula?

- A.  $T = 1/\lambda$
- B.  $T = \lambda$
- C.  $T = \lambda v$
- D.  $T = \lambda/v$

3. The driver of a car sounds a horn while traveling toward a stationary person. Compared to the sound of the horn heard by the driver, the sound heard by the stationary person has?

- A. Lower pitch and shorter wavelength
- B. Lower pitch and longer wavelength
- C. Higher pitch and shorter wavelength
- D. Higher pitch and longer wavelength

4. As a sound wave travels through air there is a net transfer of \_\_\_\_\_.

- A. Energy only
- B. Mass only
- C. Both Mass and Energy
- D. Neither Mass or Energy

5. As a wave travels through a medium, the particles of the wave vibrate in the direction of the wave's travel. What type of wave is traveling through the medium?

- A. Longitudinal
- B. Torsional
- C. Transverse
- D. Hyperbolic

6. A wave completes one vibration as it moves a distance of 2 meters at a speed of 20 meters per second. What is the frequency of the wave?

- A. 10 Hz
- B. 2 Hz
- C. 20 Hz
- D. 40 Hz

7. What is the period of a wave, if 20 crests pass an observer in 4 seconds?

- A. 80 s
- B. .2 s
- C. 5 s

D. 4 s

8. Two waves traveling in the same medium interfere to produce a standing wave. What is the phase difference between the 2 waves at a node?

A. 0 degrees

B. 90 degrees

C. 180 degrees

D. 360 degrees

9. As a pulse travels along a rope, the pulse loses energy and its amplitude

A. Decreases

B. Increases

C. Remains the same

10. Compared to the wavelengths of visible light the wavelengths of UV light are

A. Shorter

B. Longer

C. The Same

Answer Key

1. B

2. A

3. C

4. A

5. A

6. A

7. B

8. C

9. A

10. A