

Wave Equation Homework

⚠ This is a preview of the published version of the quiz

Started: May 14 at 7:36am

Quiz Instructions

Question 1

1 pts

A 156 Hz tuning fork is struck and a sound wave travels towards a person. If the sound wave is moving 340 m/s, determine the wavelength of the sound.

meters

Velocity = Wavelength*Frequency

Question 2

1 pts

A 212 Hz tuning fork is struck and a sound wave travels into a solid piece of iron. If the sound wave has wavelength 3 meters in the iron, determine the velocity of sound in iron.

m/s

Velocity = Wavelength*Frequency

Question 3

1 pts

A tuning fork is struck and a sound wave travels towards a person with wave length .4 meters. If the sound wave is moving 340 m/s, determine the frequency of the sound. Hz

Velocity = Wavelength*Frequency

Question 4**1 pts**

A person yells toward a large canyon wall 1000 meters away. If the velocity of sound in air is 340 m/s, how much time passes for the yell to echo back to the person?

seconds

speed = distance/time

*Remember to double the distance.

Question 5**1 pts**

The speed of light is 300,000,000 m/s.

What is the wavelength of a light wave with frequency 10,000 Hz?

meters

Velocity = Wavelength*Frequency

Question 6**1 pts**

The speed of light is 300,000,000 m/s.

What is the frequency of a light wave with wavelength 2000 meters?

Hz

Velocity = Wavelength*Frequency

Question 7**1 pts**

The velocity of a wave is determined by the medium in which it travels.

True

False

Question 8**1 pts**

Sound travels faster in solids than in gases or liquids.

True

False

Question 9**1 pts**

Sound does not need a medium in which to travel.

True

False

Question 10**1 pts**

Electromagnetic waves do not need a medium in which to travel.

- True
- False

Not saved

[Submit Quiz](#)