Waves are _____ and they _____ _____& information over great distances

The energy of a wave is _____ to its frequency.

Fast oscillation = high frequency = _____
Slow oscillation = low frequency = _____

The _____ is a measure of the wave intensity.

- **SOUND: amplitude corresponds to _____**
- **LIGHT: amplitude corresponds to _____**

The illustration below shows a series of transverse waves. Label each part in the space provided.

a. _____

b. _____

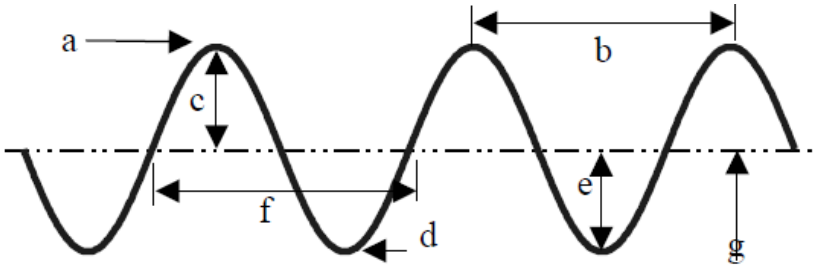
c. _____

d. _____

e. _____

f. _____

g. Average line



Wave Calculations

$v = \lambda f$

$V =$

$\lambda =$

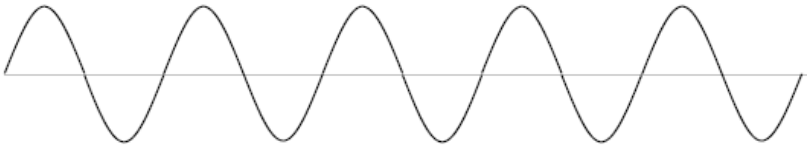
$f =$

The wavelength of a sound wave in this room is 1.13 m and the frequency is 301 Hz. What is the speed of the wave in the room?

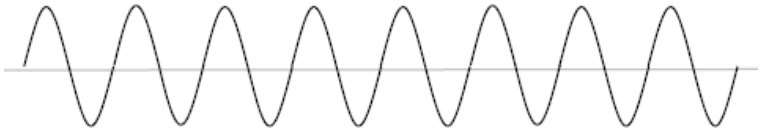
Consider a wave generator that produces 12 pulses per second (a frequency of 12 Hertz). The speed of the waves is 3 m/s. What is the wavelength of the waves?

Sally Sue, an enthusiastic physics student enjoyed the opportunity to collect data from standing waves in a spring. She and her partner held the ends of their spring 4.00 meters apart to create a wave. Their wave's speed was 20 m/s. What is the wave's frequency?

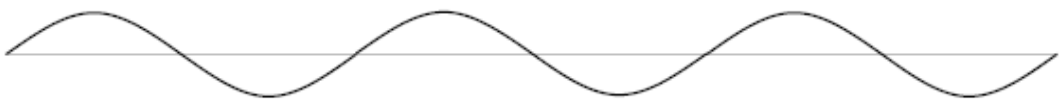
Wave Trains



a) How many waves are there in this wave train? _____



b) How many waves are there in this wave train? _____



c) How many waves are there in this wave train? _____