مدارس البكالوريا
BACCALAUREATE SCHOOLS

Wave Properties Worksheet - 2

Name:_____. **Date**:_____. **Grade**: 7th

Answer the following questions:

1. Transverse and longitudinal waves can combine. Describe what kind of wave is formed and how matter moves as the wave passes through.

_____

_____

_____

_____

_____

_____

2. **Use the information below to answer questions 2, 3, and 4.**

Material	Temperature °F	Speed of Sound ft/sec
Air	32	1,087
Air	68	1,127
Aluminum	68	16,700
Carbon Dioxide	32	856
Fresh Water	32	4,629
Fresh Water	68	4,805
Hydrogen	32	4,219
Lead	32	4,030
Salt Water	32	4,800
Salt Water	68	4,953
Steel	32	16,410
Steel	68	16,850

A worker is fixing a ladder at the community pool. Both the temperature of the water and of the air is 68 degrees Fahrenheit. He bangs on the aluminum ladder with his steel hammer. There is a swimmer swimming in the pool while the man works.

Compare how the sound waves move in air, aluminum, steel, and water. Use data from the table to support your answer. Form an explanation for the differences in speed.

_____

_____

_____

_____

_____

_____

3. The worker begins to hammer even harder on the ladder. Explain how the waves change by choosing one word from the first column and one word from the second column to complete the sentence.

wavelength energy	energy
amplitude matter	matter
frequency	

When the man hammers harder on the ladder, the waves created will have a greater _____ and will transfer more _____.

4. The swimmer in the pool is making waves when he swims. Choose two sentences that describe both the swimmer's waves and the waves the worker makes when he hammers on a ladder. Write the letters of the correct answers on the line at left.

A. They both transfer matter.
B. They both transfer energy.
C. They both are surface waves.
D. They both are transverse waves.
E. They both need matter to travel through.