WAVE MOTION

1.) A wave is:

a. possible in a vacuum
b. a disturbance that moves through a medium
c. generated by a periodic force being applied to a medium
d. none of the above

2.) You are in a boat on the ocean when you observe three crest pass you by. How many wavelength have you experienced?

a. one
b. two
c. three
d. none of the above

3.) A wave with wavelength 4 m passes by moving with wave velocity 2 m/s. The wave's period is:

a. 1 second
b. 2 seconds
c. ½ second
d. none of the above

4.) A wave with wavelength 4 m passes by moving with wave velocity 2 m/s. The wave's frequency is:

a. 1 second
b. 2 seconds
c. ½ second
d. none of the above

5.) A standing wave:

a. is the consequence of the superposition of two waves moving in opposite directions
b. is a resonance phenomena
c. is both a and b
d. is neither a nor b

6.) An longitudinal wave can be produced by:

a. an audio speaker
b. a pebble dropped into a pond
c. a spring secured at one end with its other end yanked upward
d. both b and c

7.) Audio generators produce sound between 20 and 20,000 Hz:

a. because that is the industry standard
b. because the materials that make up speakers can't vibrate at frequencies higher than 20,000 Hz
c. because it is cost effective to produce a wide range of sound that wide spread
d. because that is the range of frequency an undamaged human ear can hear

b, d, b, c, c, a, d,