

Name: _____

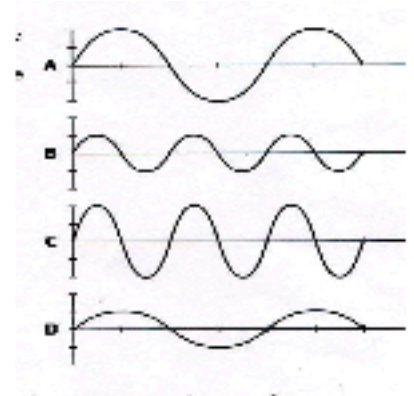
Class Period: _____

Physics: Speed of Sound and Sound Intensity

Conceptual Questions:

1. Sketch a transverse wave and a longitudinal wave. (Label the compression and rarefaction for the longitudinal wave)
2. What does the amplitude of a sound wave control?
3. What does the frequency of a sound wave control?

4. Study the four transverse waves shown to the right. Compare the properties of waves B, C, and D to that of wave A, and complete the following four questions:



Compared to wave A, which wave has the same wavelength but a smaller amplitude?

- A.) Wave B
- B.) Wave C
- C.) Wave D

Compared to wave A, which wave has a shorter wavelength but the same amplitude?

- A.) Wave B
- B.) Wave C
- C.) Wave D

5. What happens to the intensity of a sound as you move farther away from the source?
6. If you triple your distance away from a sound source, how much sound do you hear? ($1/2$, $1/3$, $1/4$, ? etc)

