

MiSP Light and Sound Assessment L3

Name _____

Date _____

1. List two differences between light waves and sound waves.

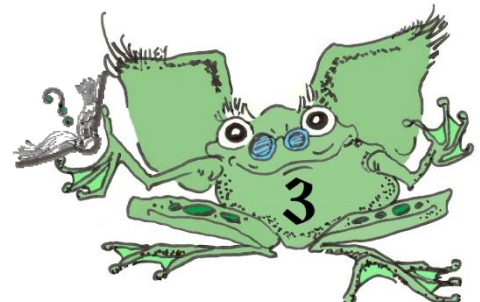
a. _____

b. _____

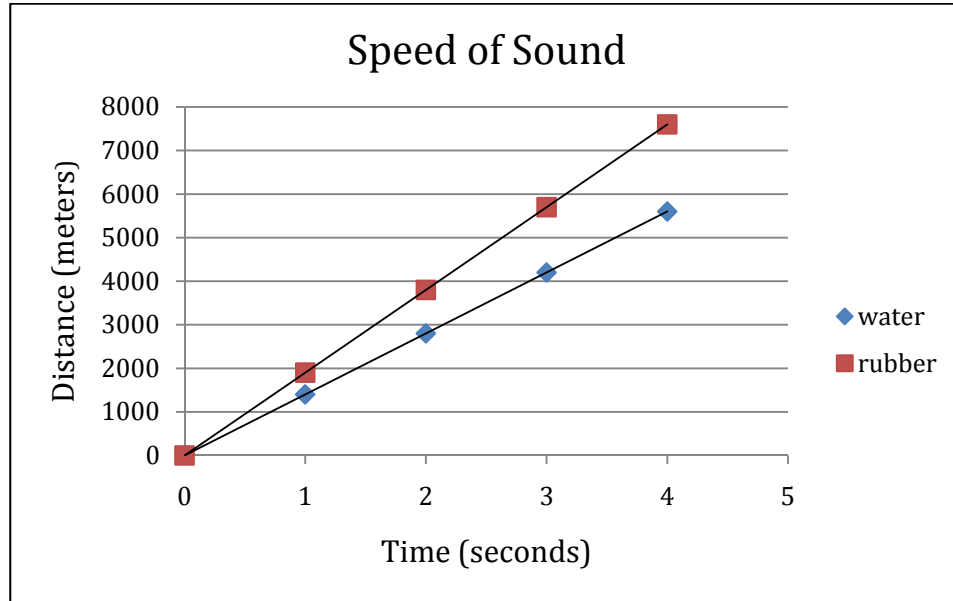
2. When light travels through a medium that is denser than air, it speeds up / slows down (circle one).

3. When sound travels through a medium that is denser than air, it speeds up / slows down (circle one).

4. Explain why sound cannot travel in a vacuum.



5. The graph below shows the distance (m) that sound can travel each second for 4 seconds in water and in rubber.



6. Does sound travel faster in water or in rubber? _____ How do you know?

7. What is the speed of sound in rubber? Show equation, substitutions, and answer.

8. What is the slope of the line on the graph representing the speed of sound in rubber? Show equation, substitutions, and answer.



9. Use the slope to predict how far sound will travel in 8 seconds. Show your work.
10. Write an equation for the line representing the speed of sound in rubber.
11. Use the equation for the line representing the speed of sound in rubber to predict how long it will take a sound to travel one mile (approximately 1600 m). Show your work.

