

The Science of Acoustics – McCaskey

Assignment #4

Due next week at the **beginning** of class. Please write out or type your answers, and hand them in then. No homework will be accepted after solutions are posted. Show your work!

Go to the course resources page, chapter 4

Do problems 1-6.

On #6, to get a percentage difference between two numbers a and b, use

% difference = $100 \times |a - b| / (\text{average of } a \text{ and } b)$. The average of two numbers a and b is $(a+b)/2$.

Finally, try this question #7 from an in-class handout I used to give when we had more in-person time:

7. A wave travels 46 m/s and vibrates at a frequency of 100 Hz. Find the wavelength of this wave. If a string vibrating at this frequency has two nodes between the ends and three antinodes, how long is the whole string?