Name: _____ Section #: ____ Date: _____

Speed of Sound - Resonance Tube

Prediction

Explain how will you define the point of resonance in this lab experiment.

Run the experiment. Enter all the values in the Inlab in WebAssign to check the results.

Data Analysis. Calculations.

Show all your work (**equations and calculations**) that you did to get the answers submitted in each part of the Inlab.

Calculate the theoretical speed of sound in air at temperature T.

Tuning Fork A

Calculate the wavelength of the sound wave and the error in wavelength measurement.

Calculate the experimental speed of sound and the error in the speed of sound measurement.

Tuning Fork B

Calculate the wavelength of the sound wave.

Calculate the average wavelength of the sound wave.

Calculate the experimental speed of sound.

Calculate the average experimental speed of sound using the values of speed received for tuning fork A and tuning fork B.

For tuning fork B, predict where the resonance given in your inlab will be found. Show your calculation below. Run the experiment to check your prediction.

Have your TA sign this worksheet below and then upload it to the Inlab.

TA Signature: _____