SPEED OF SOUND

+ The purpose of this lab is to determine the speed of sound in air at room temperature.

+ Measure the length of tube above the water when resonance occurs at the first harmonic of both the tube and the tuning fork. Repeat this measurement for the eight notes of an octave plus at least one additional frequency (preferably, something higher than 512 Hz). Record your results in the table below.

note	*frequency* (Hz)	*tube length* (m)	*wavelength* (m)
C_4	256		
D_4			
E_4			
F_4			
G_4			
A_4			
B_4			
C_5	512		

+ Construct a graph of *wavelength* vs. *frequency* and apply an inverse curve fit to the data. Use these results to determine the speed of sound in air at room temperature.