

Alpha-numeric title of lab		Descriptive title of lab																
TITLE Lab 3 (or E3)	Project No. Book No.	1																
From Page No.		Brief description of the experiment																
August 5, 2016	Acoustic Resonance Tube																	
Date and time of the experiment																		
<p>SPEAKER → V<sub>pp</sub> = 3V func. gen. → 'scope d = 6cm L microphone acoustic wave C = f<sub>0</sub> · L / 4 → f<sub>0</sub> = 4C / L reflects off water surface H<sub>2</sub>O</p>																		
Schematic drawing of experimental setup	<p>We are measuring the acoustic resonance frequency as a function of the tube length L. The length is adjusted by adding water.</p> <p>Record your data in tables like this one.</p> <table border="1"> <thead> <tr> <th>L (cm)</th> <th>f<sub>0</sub> (kHz)</th> </tr> </thead> <tbody> <tr><td>91</td><td>1.605</td></tr> <tr><td>74</td><td>1.735</td></tr> <tr><td>66</td><td>1.914</td></tr> <tr><td>58</td><td>2.156</td></tr> <tr><td>49.5</td><td>2.498</td></tr> <tr><td>41</td><td>4.716</td></tr> <tr><td><del>36</del></td><td><del>5.849</del></td></tr> </tbody> </table> <p>Cross out mistakes with an X or single line. The words or numbers underneath must still be readable.</p> <p>plot <math>y = 1/f_0</math> VS. L</p> $1/f_0 = \frac{L}{4C} \rightarrow \text{slope } m = \frac{1}{4C}$		L (cm)	f <sub>0</sub> (kHz)	91	1.605	74	1.735	66	1.914	58	2.156	49.5	2.498	41	4.716	<del>36</del>	<del>5.849</del>
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Witnessed & Understood by me, <i>John Ott</i>	Date 8/5/16	Invented by: Recorded by: <i>Paul Prumilack</i>																
To Page No. _____																		
You sign here.		Write the date here.																