

Introduction

For the Electronics Lab course, the multimeter model that is used is the 34405A. This multimeter allows us to help measure features such as either true RMS AC or DC voltage and as well as true RMS AC or DC current. The range of the voltage on the multimeter goes from 10mV to 1000V, while the range for the current goes from 10mA to 10A. The input impedance of the multimeter is around $1\text{M}\Omega \pm 2\%$ for AC voltage while the input resistance for DC voltage is listed around $10\text{M}\Omega \pm 2\%$. The circuit in our lab is a simple series circuit, therefore the voltmeter acts as a voltage divider.

$$V_V M = V_{Source} \left(\frac{R_V m}{R_V M + R} \right)$$

$$\frac{\hbar^2}{2m} \nabla^2 \Psi + \Psi V = j\hbar \frac{\partial \Psi}{\partial t}$$

LaTeX also lets you create tables:

Table 1: My first LaTeX table

Frequency [Hz]	Scope Voltage at R = $1\text{k}\Omega$ [V]	Scope Voltage at R = $1\text{M}\Omega$ [V]
1kHz	10.25	5
1MHz	9.31	0.1

A really critical feature of LaTeX for us is that we can refer to tables by reference as opposed to by the name directly. Look in the LaTeX source for how I refer to 1 without actually explicitly writing out "Table 1" or what have you. This way, we can simply give our tables variable names, and the numbering will be automatically done for us. This automated numbering scheme also extends to the text. This can also be extended to page numbers. See this link for more details: https://en.wikibooks.org/wiki/LaTeX/Labels_and_Cross-referencing.