

Prelab for PHYS222 Spring 2021 version
Ohm's Law Even version

Name _____ **Section** _____

1. What is Ohm's Law? Give formula (define terms) and a qualitative explanation.

2. Draw an example of plot of an 'ohmic' devices? Be sure and include the units of the axes. See text or 'google' answer.

3. An ideal voltmeter should have a resistance of _____

4. Considering your answer above explain and how a voltmeter is connected, why this is a desirable attribute for a voltmeters?

5. If I vs V is plotted and the result is a linear relationship, what value is obtained from the slope? Please note that we are using the relationship $I=V/R$ (i.e., voltage is the independent variable and current is dependent variable).

If you obtained a slope of 0.001 Ohms^{-1} what is the value of the resistor?

Bonus Points (20 points)

Please take a survey on your attitudes about experimental physics course using this link:

https://cuboulder.qualtrics.com/SE/?SID=SV_6JuNCKUUKAHarOu

The link will expire on **Wed, Feb 17**. Dr. Xiao will receive a list of participated students after the due date and will add bonus points to your Pre-Lab assignment for your participation. Report about survey responses will be fully anonymized, so your answers won't affect your course grade.

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