Tuesday Reading Assessment: Unit 1, Ohm's Law and Batteries, DC Circuits and Power

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1 Memory Bank

- $y(x) = mx + b$ ... Linear function with slope m, and y-intercept b
- $m = \Delta y / \Delta x$ ... Formula for slope.
- $V = iR$ ... Ohm's Law, with V for voltage, i for current, and R for resistance.

2 Calculating Slope from Data

1. Suppose you encounter the data in Tab. 1. If you treat the voltage as the y-variable, and current as the x-variable, what is the slope of the data? What are the units of the slope?

Current (mA)	Volts (V)
5	1
10	2
15	3
20	4
25	5
30	6

Table 1: A measurement of current through a resistor, given a voltage dropped across the resistor.

2. How would your answer to the previous problem change if the current was treated like y and voltage were treated like x?