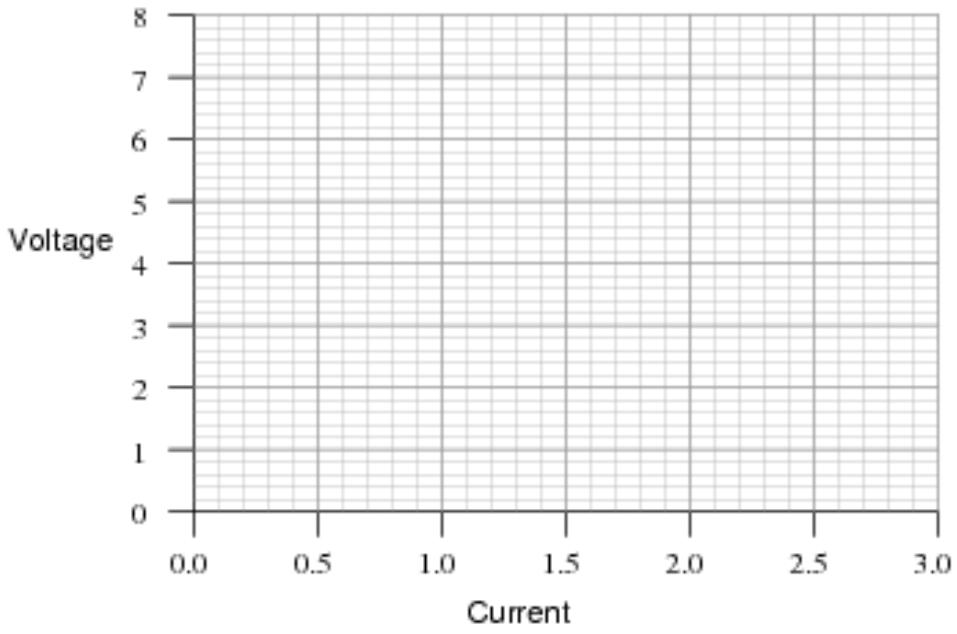
Class Activity – Ohm's Law

Suppose you were to build this circuit and take measurements of current through the resistor and voltage across the resistor:

Recording these numerical values in a table, the results look something like this:

XXXXXXX	XXXXXXX
Current	Voltage
0.22 A	0.66 V
0.47 A	1.41 V
0.85 A	2.55 V
1.05 A	3.15 V
1.50 A	4.50 V
1.80 A	5.40 V
2.00 A	6.00 V
2.51 A	7.53 V

Plot these figures on the following graph:



What mathematical relationship do you see between voltage and current in this simple circuit?

What is the resistance in the circuit?