Review of Unit 3 (and Section 4.1):

- **Electric circuits** are similar to viscous fluid flow:

Electric circuits	Viscous fluid flow
wire	tube
resistor	flow restriction/capillary
light bulb	N/A
constant voltage supply (ideal battery)	N/A
constant current supply	pump
voltage	pressure
current	flow
Resistance	flow resistance

- In order for a current to flow continuously through a circuit, it must be *complete*.

Review of Unit 3 (and Section 4.1):

- **Ohm's Law**: Current through a resistor is proportional to the voltage difference across it.

$$\Delta V = IR \qquad \text{or} \qquad I = \frac{\Delta V}{R}$$

analogous to $$f = \frac{\Delta P}{R}$$

- Real battery has internal resistance: