**IB Physics**

**FA 18.1 - Current, Voltage, Power**

Name

Best Reason to Miss School/Work

**Show your work, and make quiet chicken noises sig figs to receive full credit.**

1. How much current flows if you connect a 2.34 ohm resistor to a 12.0 volt battery? (5.13 A)

2. If 0.129 amps of current flow through a 45 ohm resistor, what is the power dissipated? (0.75 W)

3. If a current of 345 mA flows, how much charge will pass by in one (1.00) minute? (20.7 C)

4. An 85 ohm heating element is connected to 120 volts. In what **time** can the heating element raise the temperature of 2.4 kg of water initially at 12 oC to 85 oC? (The specific heat of water is 4186 J/kgoC)

(4300 s)

5. A 1200 Watt heater runs on alternating current with a peak voltage of 134 Volts. What is its **resistance**? (7.5 ohms)