

IB Physics
FA 18.1 - Current, Voltage, Power

Name_____

Best Reason to Miss School/Work_____

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

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

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

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

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 °C to 85 °C? (The specific heat of water is 4186 J/kg°C)

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