Voltage, Current and Resistance!

1. A batter converts 72 J of chemical energy into Electrical energy. This places 12 C of negative charge at the negative terminal. What is the voltage between the negative and positive terminals of the battery?
2. Find the current needed to supply 88 coulombs of charge in 112 seconds?



1. How much energy can an electrical motor produce when it is plugged into a 110V outlet with a total charge of 50C passing through the motor?
2. What unit of charge will be formed if 4 A of current move through a circuit for 30 seconds?
3. How many seconds are needed for 3 A of current to produce 21 C of charge?



1. Gasoline-powered generators charge chemical energy into electrical energy. If a generator produces 120 V with a charge of 60 C at the negative terminal. How many joules of energy are produced?
2. How long will it take for 30 C of charge to have a current of 5 A?
3. If a generator burned enough gasoline to produce 28 800 J, what would the coulomb charge be?
4. Find the resistance of the light bulb in this circuit. The battery is 1.5 V and the ammeter is reading 85 A.
5. 
6. Draw a circuit that has 2 light bulbs connected in series with a 9 V battery and ammeter.
7. If the light bulbs have the same resistance as in question 9, what is the current reading on the ammeter? (hint: because there are 2 light bulbs there is twice as much resistance)
8. The school’s fire alarm consist of a circuit that has a 150 ohm buzzer and a 100 ohm blinking light connected in series with a 110 V power source and a switch (closed when someone pulls the fire alarm)
	1. Draw the circuit.
	2. Find the current that flows through this circuit when someone pulls the alarm (remember to add the resistances together)
	3. Draw a circuit with a 10 ohm resistor, a battery, an ammeter and a switch, all in series.
	4. If the ammeter reads 155 A what is the voltage of the battery?

