

Know how to solve problems involving Ohm's law.

Know how to predict the voltage or current in simple direct current (DC) electric circuits constructed from batteries, wires, resistors, and capacitors.

Know how to combine resistors to find total resistance

Recognize series and parallel connections

Draw a circuit given a written description or picture.

Know the properties of ammeters and voltmeters and how they are properly connected to read current and voltage.

Know objects in series have the same current

Know objects in parallel have the same voltage

Know the voltage gains (batteries) and losses (resistors) going around a circuit loop must add up to zero

Know the total current entering a circuit junction must equal the total current leaving.

Know the effects of connecting lightbulbs (resistors) are connected in series or in parallel

Know any resistive element in a DC circuit dissipates energy, which heats the resistor.

Calculate the power (rate of energy dissipation) in any resistive circuit element by using the formula  
 $\text{Power} = IR = I^2R$

Know the units for current, potential difference, power, and resistance.

<http://www.physics.uoguelph.ca/tutorials/ohm/>

<http://hyperphysics.phy-astr.gsu.edu/HBASE/emcon.html>