

May 19, 2011

- 1) Check HW pg 300 #1-5
- 2) Circuit Diagrams

Warm- Up

Name the four parts of a circuit.

Source
control device
connecting wires
load

Answers Page 300-301

#1-5

1) Static electricity stays in one place on an object and current electricity is an electric charge that is moving in one or more paths.

2)

Part of circuit	Function	Examples
Source of electrical energy	Provide energy to the electrical load in the circuit	Dry cell, 120-V source, etc. <i>battery, wall outlet</i>
Electrical load	Convert electrical energy into another form of energy	Light bulb, motor, etc.
Electric circuit control device	To control the flow of electric current in the circuit	Switch, fuse, <i>thermostat</i>
Connectors	To provide a conducting path between the parts of the electric circuit	Connecting wires, copper strips on printed circuit boards

Answers Page 300-301

3) The electric charge flows from the negative terminal of the dry cell, through the switch, the bulb and back to the positive terminal of the dry cell. Negative charges are released at the negative terminal are attracted to the positive terminal.

4) a) Light bulb inside the fridge, ceiling light bulb, viewing light on microwave, warning light on the stove for element.

b) coffee grinder, blender, bread making machine, can opener.

Most energy- ceiling light bulb

least- warning light on stove

Answers Page 300-301

5) a) kitchen- wall switches for ceiling light, on/off lever switch for the toaster, control knob for stove element, timer controls on microwave oven.

b) basement/laundry- wall switch for ceiling light, door switch for electric dryer, timer control on electric dryer, washing cycle switch on the washing machine.

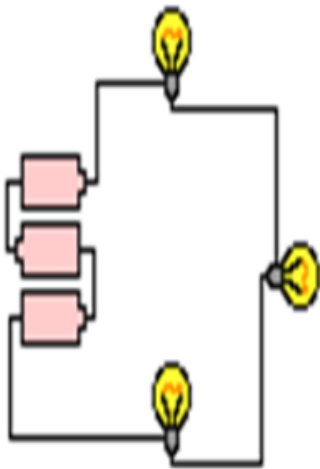
c) Car- switch for headlights, push button for horn, switch to start engine, switch for controlling window defrost heaters

Schematic Circuit Diagrams

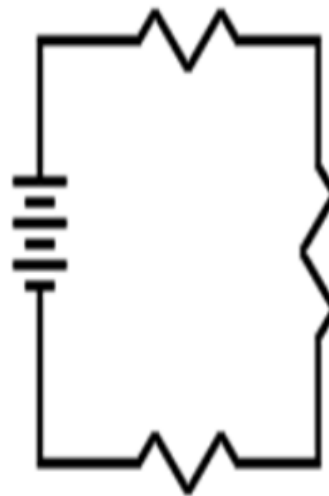
- A special set of symbols are used to simplify the drawing of electrical circuits.
- Drawing of circuits using these symbols is called schematic circuit diagrams.

Sample Schematic Diagram Compared to Drawing of the Same Circuit

Drawing of Circuit



Schematic Diagram of Circuit



Some Symbols for Schematic Circuit Diagrams

pg 545



Single Cell



Battery



Connecting wire



Resistor

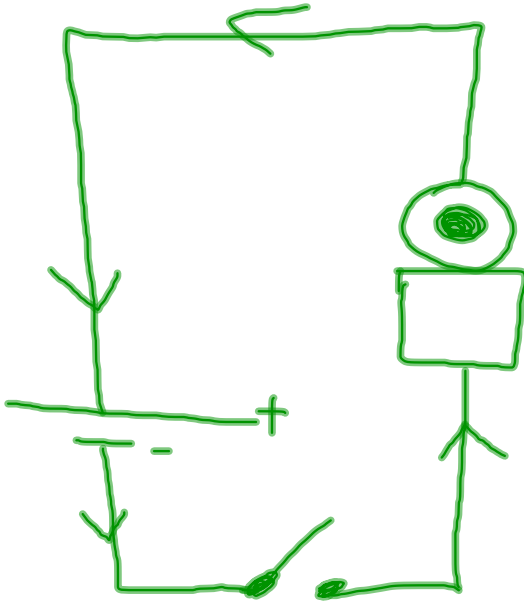


Switch (open)



Switch (closed)

Example: Draw a diagram with a switch a bell and a battery



pg 301 #7

Circuit Diagram Assignment

Attachments

Chp 9 senteo quiz.notebook