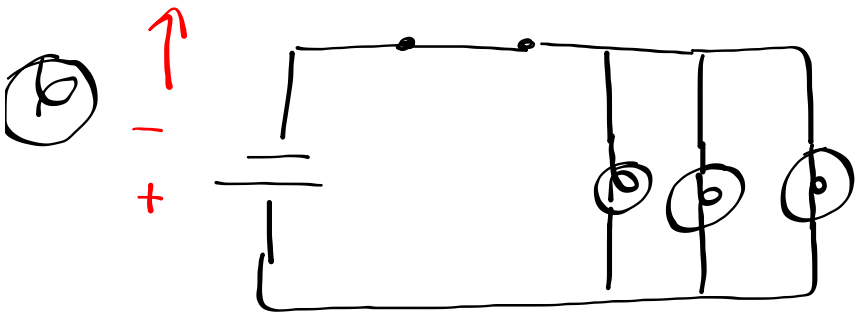
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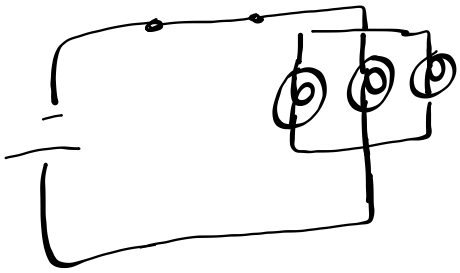

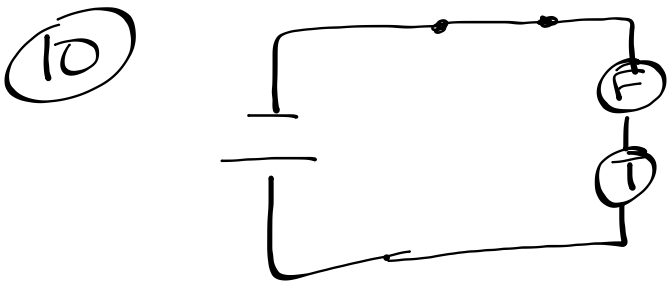
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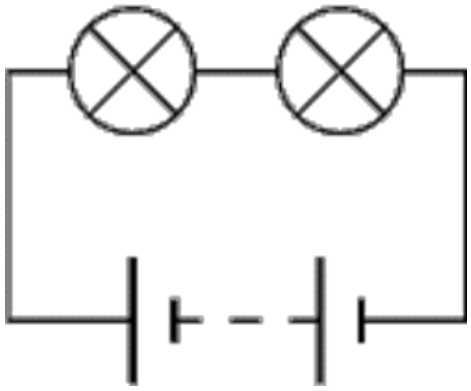
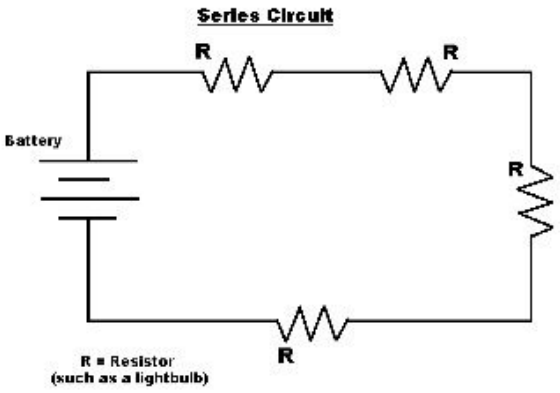
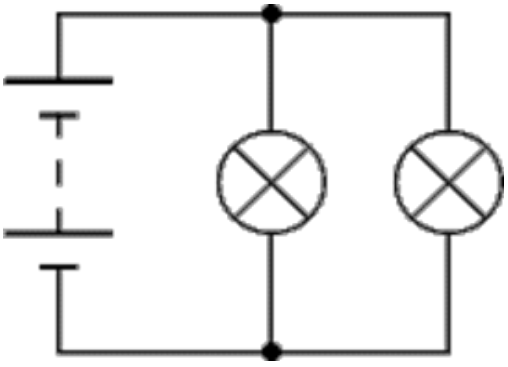
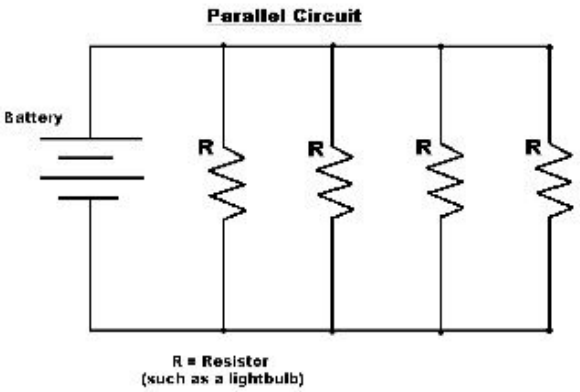
Electric Circuit

- involves the flow of electrons from one place to another
- must contain four aspects: source, control device, conductors, load
- electrons flow from negative terminal of source









Voltage (electric potential) V

the energy that each electron has as it leaves the source

Current I

a measure of the rate at which electric charges move past any given point in the circuit

Resistance R

the extent to which a resistor will impede the flow of electrons

$V = 60. km/h$

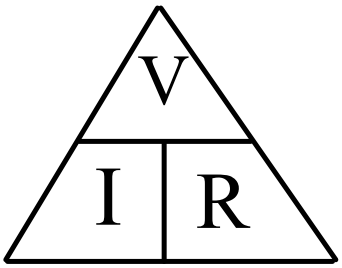
$R = 140\ \Omega$

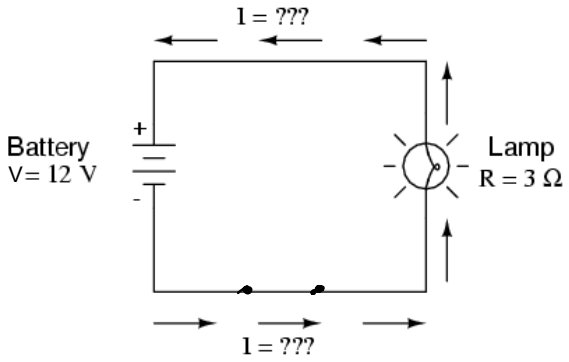
Ohm's Law

Quantity	Symbol	Unit of Measurement	Unit Abbreviation
Current	I	Ampere ("Amp")	A
Voltage	V	Volt	V
Resistance	R	Ohm	Ω

Ohm's Law

$$V = I \times R$$





$V = I \times R$

$I = \frac{V}{R}$

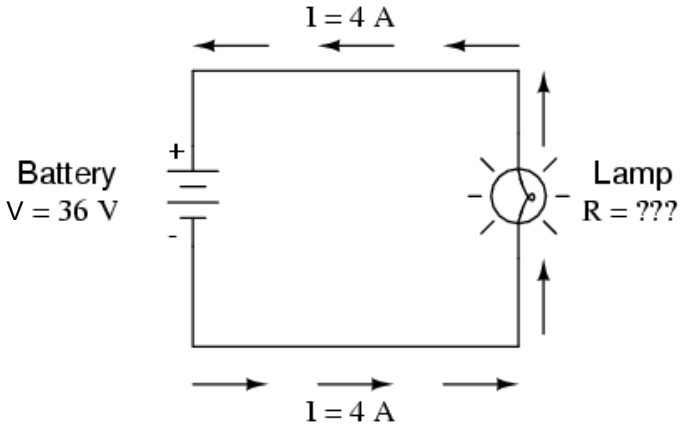
$V = 12V$

$R = 3\Omega$

$I = ?$

$I = \frac{12\ V}{3\Omega}$

$I = 4A$



$V = I \times R$

$R = \frac{V}{I}$

$V = 36V$

$I = 4A$

$R = ?$

$R = \frac{36V}{4A}$

$R = 9\Omega$

p. 315 #1,5
p. 319 #1,3,5

Attachments

Answers Series and Parallel Circuit Assignment.notebook