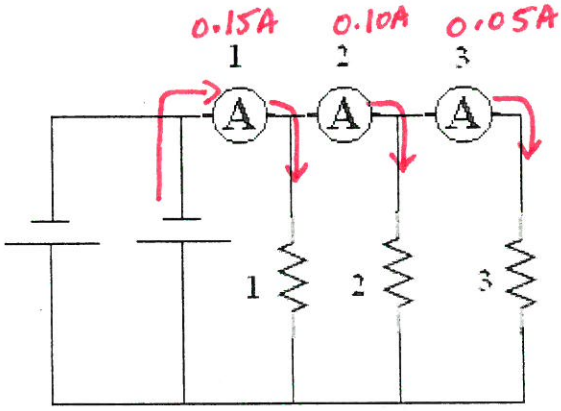
Science 9: Practice with Parallel Circuits

Name: _____

Date: _____

1. Determine the total current for the circuit below (It) 0.15A
2. Calculate the total voltage (Vt) for the circuit below. 4.5V
3. Calculate the resistance for each resistor. 90Ω 90Ω 90Ω
4. Determine the voltage drop across R1. 4.5V
5. Show the direction of e- flow in the circuit (clockwise or counter-clockwise)



Rt = 30 Ohms

A1 = 0.15 A

A2 = 0.10 A

A3 = 0.05 A

$V_T = I_T \times R_T$

$V_T = 0.15A \times 30\Omega$

$V_T = 4.5V$

$R_3 = \frac{V_T}{I_3} = \frac{4.5V}{0.05A}$

$R_3 = 90\Omega = R_2 = R_1$

Each path has equal current, so all resistors are the same