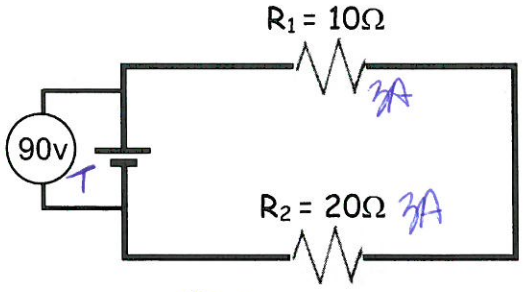
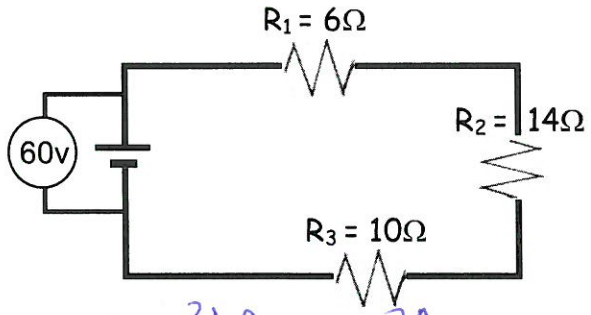
Worksheet- Series Circuit Problems, Episode 903 Name AK

Remember that in a series circuit:

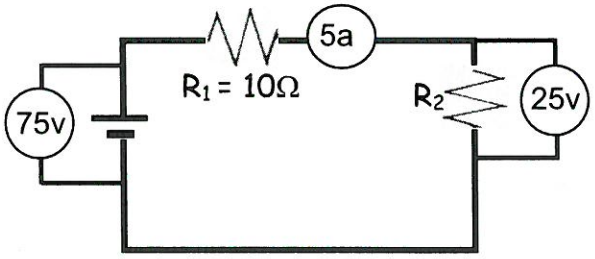
- the **current** in every part of the circuit (is the same, adds up).
- the **voltage** supplied by the battery is the _____ voltage of the circuit, and the voltage drops across each resistor (is the same, adds up to) the total voltage.
- to calculate total **resistance**, (add, use reciprocals).



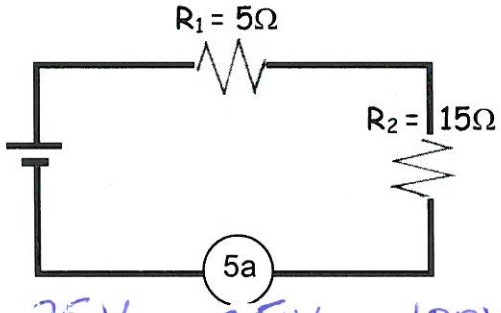
R_T= 30Ω I_T = 3A
I_1 = 3A I_2 = 3A
V_1 = 30V V_2= 60



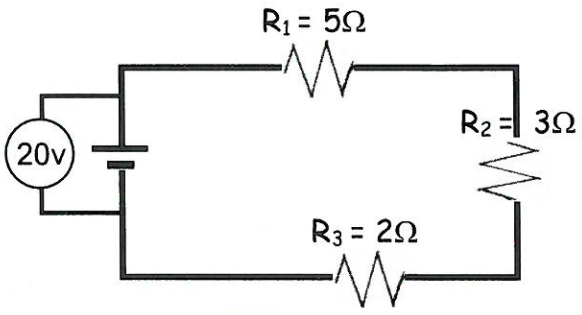
R_T= 30Ω I_T = 2A
I_1 = 2A I_2 = 2A I_3 = 2A
V_1 = 12V V_2= 28V V_3 = 20V



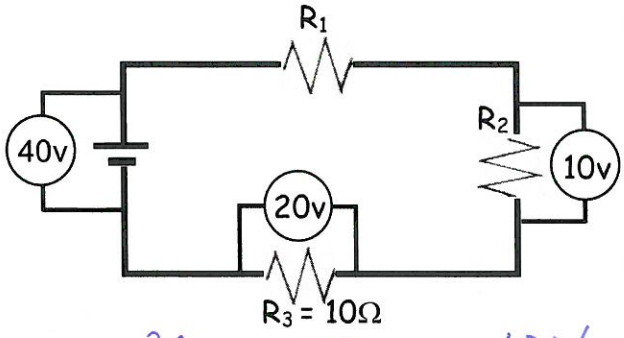
V_1 = 50V I_2 = 5A R_2 = 5Ω



V_1 = 25V V_2= 75V V_T = 100V



R_T = 10Ω I_T = 2A
V_1 = 10V V_2= 6V V_3 = 4V



I_3 = 2A I_1 = 2A V_1 = 10V
R_1 = 5Ω R_2 = 5Ω