

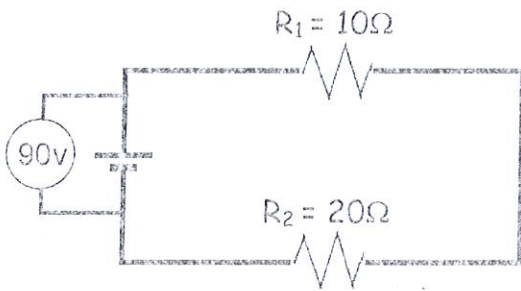
$$I = \frac{V}{R}$$



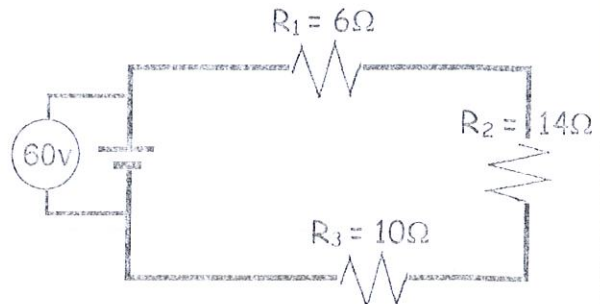
Worksheet- Series Circuit Problems, Episode 903 Name _____

Remember that in a series circuit:

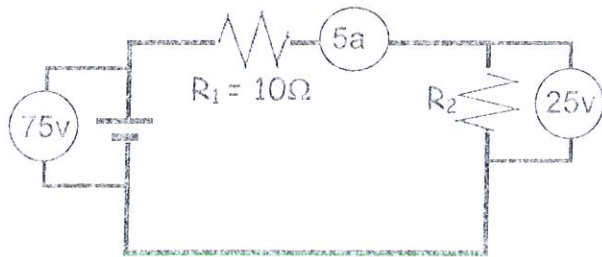
- the current in every part of the circuit (is the same, adds up).
- the voltage supplied by the battery is the _____ voltage of the circuit, and the voltage drops across each resistor (is the same, adds up to) the total voltage.
- to calculate total resistance, (add, use reciprocals).



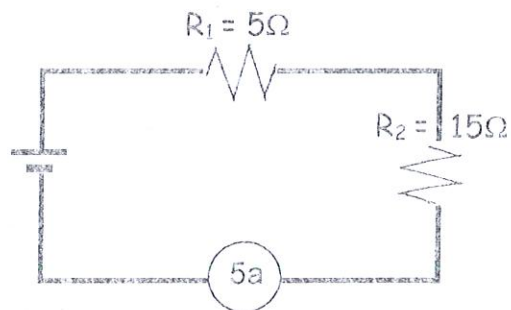
$R_T = 30\Omega$ $I_T = 3a$
 $I_1 = 3a$ $I_2 = 3a$
 $V_1 = 30V$ $V_2 = 60V$



$R_T = 30\Omega$ $I_T = 2a$
 $I_1 = 2a$ $I_2 = 2a$ $I_3 = 2a$
 $V_1 = 12V$ $V_2 = 28V$ $V_3 = 20V$



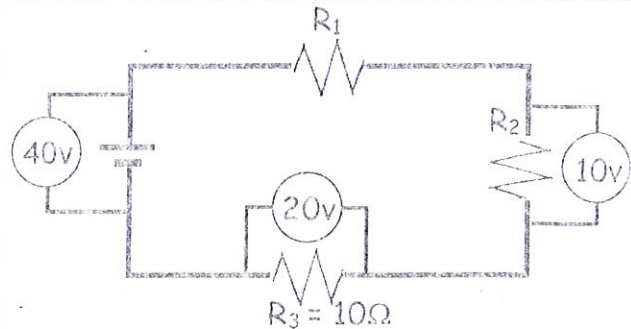
$V_1 = 50V$ $I_2 = 5a$ $R_2 = 5\Omega$



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



$R_T = 10\Omega$ $I_T = 2a$
 $V_1 = 10V$ $V_2 = 6V$ $V_3 = 4V$



$I_3 = 2a$ $I_1 = 2a$ $V_1 = 10V$
 $R_1 = 5\Omega$ $R_2 = 5\Omega$

