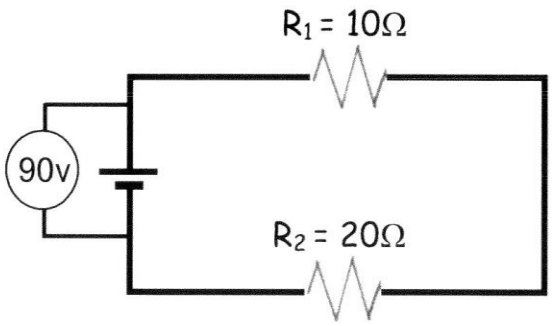
Worksheet- Series Circuit Problems, Episode 903 Name: _____

Remember: Series Circuit

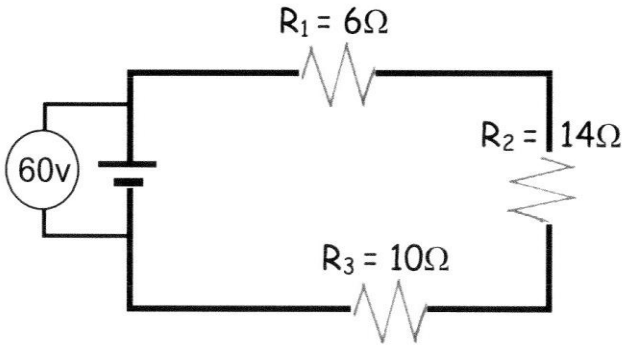
- Current around the circuit does not change
- Voltage across each Resistor will have a Voltage Drop; Voltage Drops across ALL Resistors will ADD together to equal the Total Voltage
- Resistance: Add each resistor up to find Resistance Total i.e. $R_1 + R_2 + R_3 + \ldots = R_T$



R_T= _____ I_T = _____

I_1 = _____ I_2 = _____

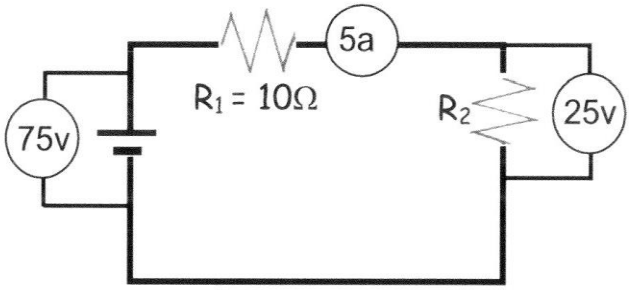
V_1 = _____ V_2= _____



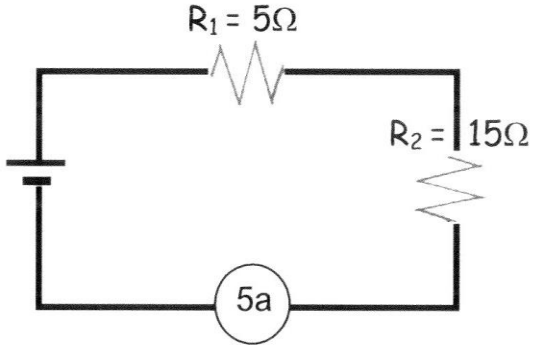
R_T= _____ I_T = _____

I_1 = _____ I_2 = _____ I_3 = _____

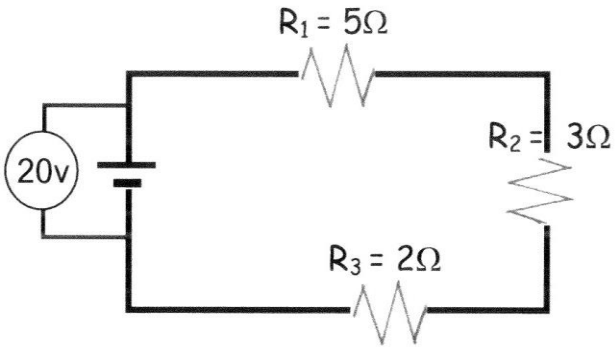
V_1 = _____ V_2= _____ V_3 = _____



V_1 = _____ I_2 = _____ R_2 = _____

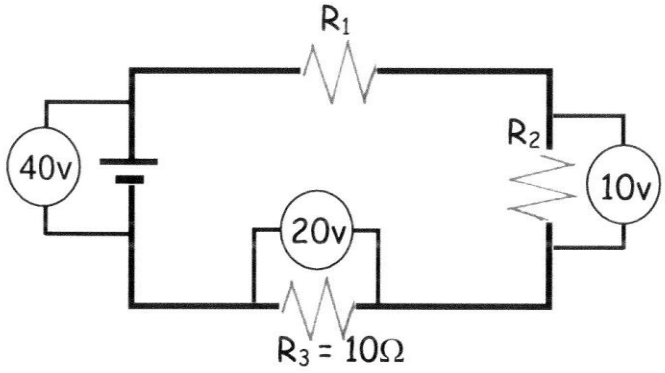


V_1 = _____ V_2= _____ V_T = _____



R_T = _____ I_T = _____

V_1 = _____ V_2= _____ V_3 = _____

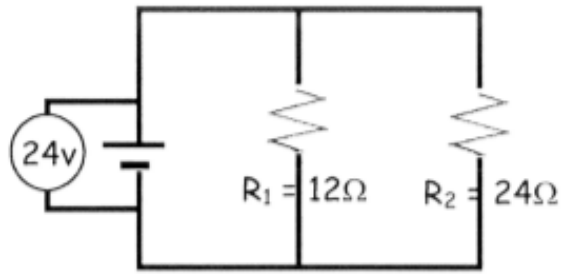


I_3 = _____ I_1 = _____ V_1 = _____

R_1 = _____ R_2 = _____

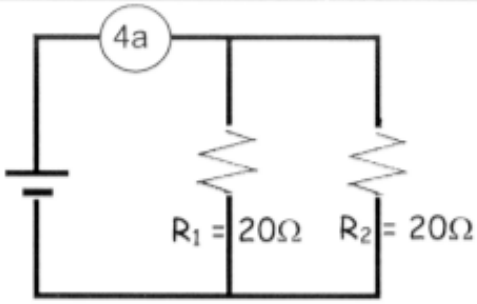
Remember: Parallel Circuit

- Current in each branch will vary and will add up to the Total Amperage
- Voltage down each branch will be the same as the Total Voltage
- Resistance: $\frac{1}{R_1}+\frac{1}{R_2}+\frac{1}{R_3}=\frac{1}{R_{EQ}}$ Find Inverse for Total Resistance = $\frac{R_{EQ}}{1}$



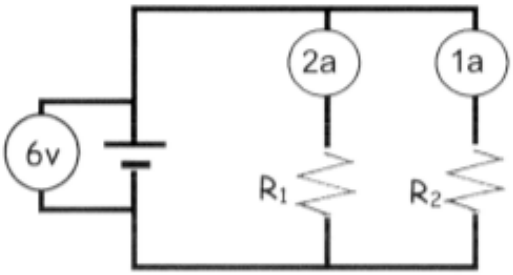
R_{eq} = _____ I_T = _____ V_1 = _____

V_2= _____ I_1 = _____ I_2 = _____



R_{eq} = _____ I_T = _____ V_T = _____

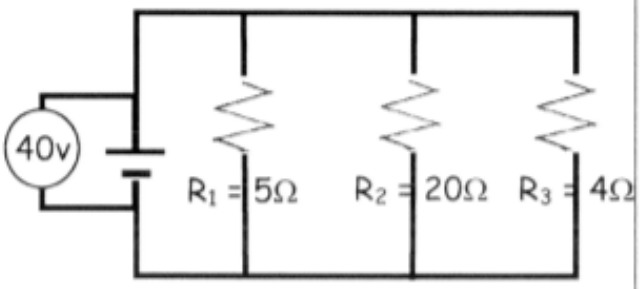
V_1 = _____ I_1 = _____ I_2 = _____



V_1 = _____ V_2= _____

R_1 = _____ R_2 = _____ R_{eq} = _____

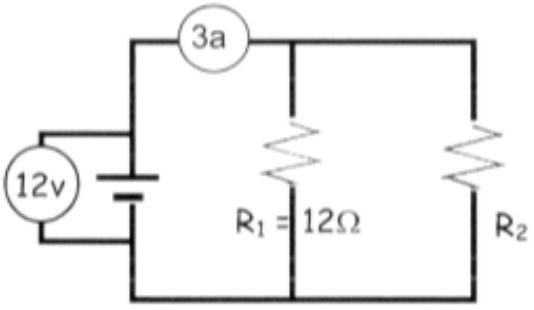
I_1 = _____ I_2 = _____ I_T = _____



R_{eq} = _____ I_T = _____

V_1 = _____ V_2 = _____ V_3 = _____

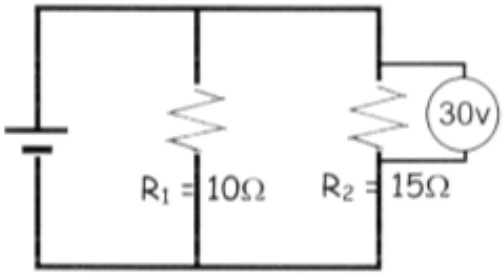
I_1 = _____ I_2 = _____ I_3 = _____



V_1 = _____ V_2= _____

I_T = _____ I_1 = _____ I_2 = _____

R_2= _____ R_{eq} = _____

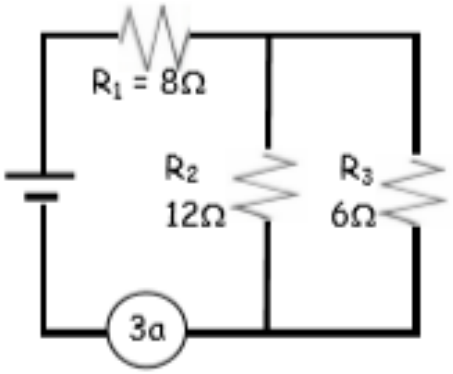


V_1 = _____ V_T = _____

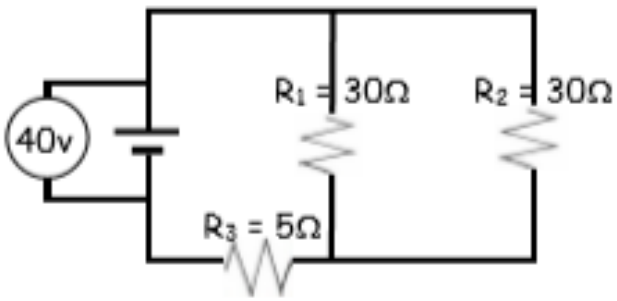
I_1 = _____ I_2 = _____

R_{eq} = _____ I_T = _____

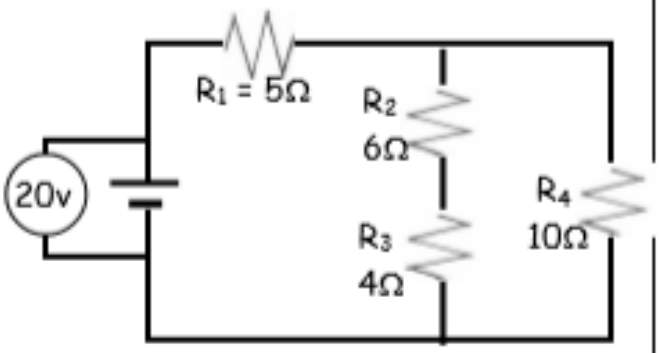
Worksheet: Complex Circuit Problems, Ep.905 **Name** _____



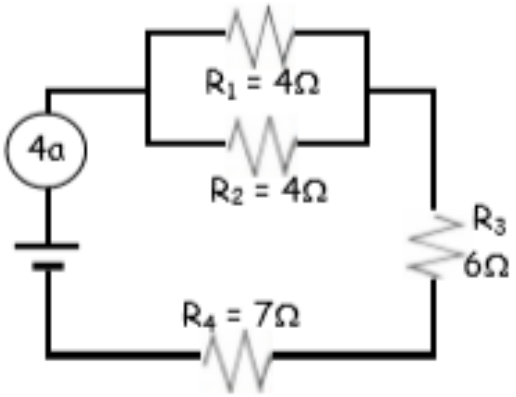
R_T = _____ I_T = _____ V_T = _____
V_1 = _____ V_2 = _____ V_3 = _____



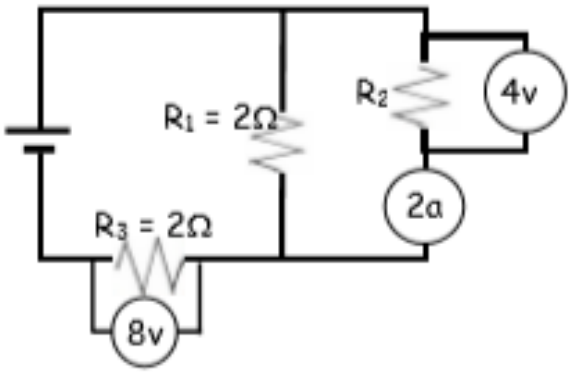
R_T = _____ I_T = _____ I_3 = _____
V_3 = _____ V_1 = _____ V_2 = _____
I_1 = _____ I_2 = _____



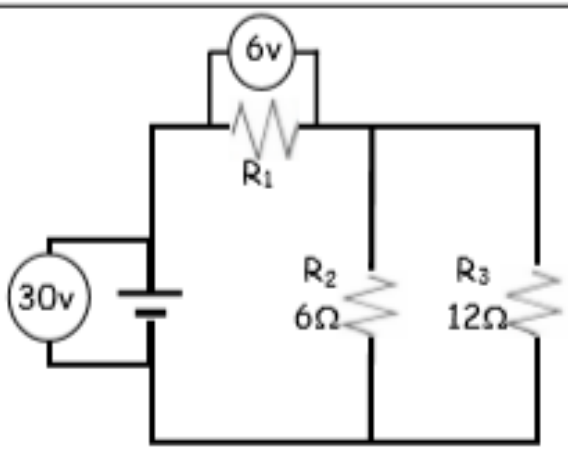
R_T = _____ I_T = _____ I_1 = _____
V_1 = _____ V_4 = _____ I_4 = _____



R_T = _____ I_T = _____ V_T = _____
I_1 = _____ I_3 = _____ V_4 = _____



R_2 = _____ R_T = _____
I_3 = _____ I_T = _____ V_T = _____
V_1 = _____ I_1 = _____



V_2 = _____ V_3 = _____
I_2 = _____ I_3 = _____
I_1 = _____ R_1 = _____ R_T = _____