

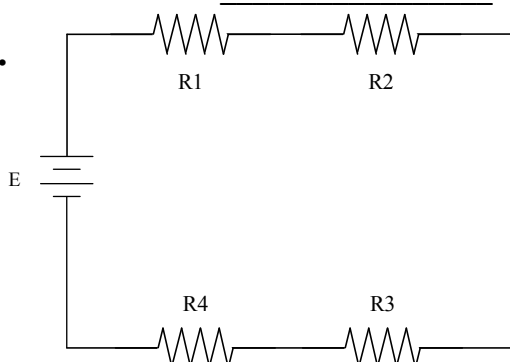
Series Circuit Worksheet #3

Meets ASE Task: (A6-A-2) P-1 Diagnose electrical/electronic integrity for series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

1.

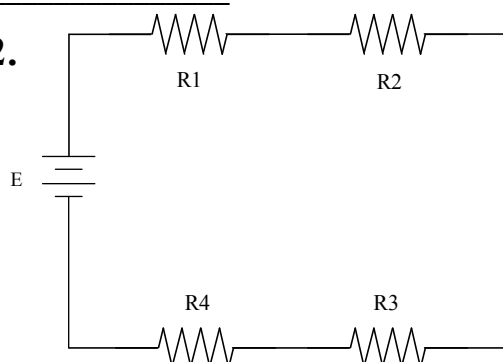


$$E = \underline{\hspace{2cm}} \quad R2 = 1 \text{ ohm}$$

$$I_T = 6 \text{ amperes} \quad R3 = 1 \text{ ohm}$$

$$R1 = 1 \text{ ohm} \quad R4 = 1 \text{ ohm}$$

2.

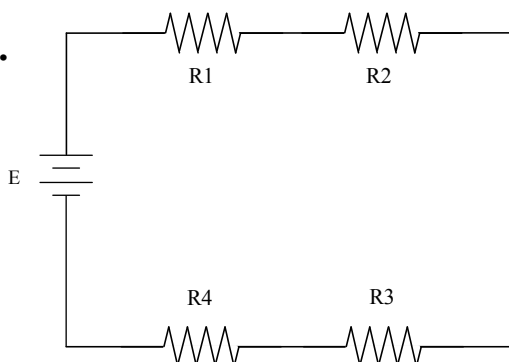


$$E = \underline{\hspace{2cm}} \quad R2 = 1 \text{ ohm}$$

$$I_T = 3 \text{ amperes} \quad R3 = 0.5 \text{ ohms}$$

$$R1 = 0.5 \text{ ohms} \quad R4 = 1 \text{ ohm}$$

3.

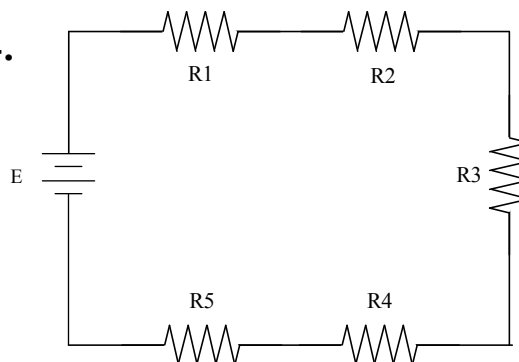


$$E = 4 \text{ volts}$$

$$I_T = \underline{\hspace{2cm}}$$

$$R_T = 3 \text{ ohms}$$

4.

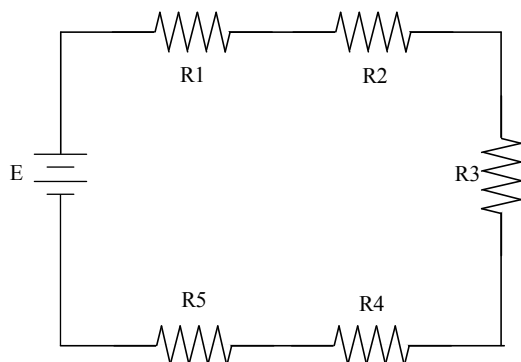


$$E = 12 \text{ volts} \quad R2 = \underline{\hspace{2cm}} \quad R5 = 1 \text{ ohm}$$

$$I_T = 1 \text{ amperes} \quad R3 = 4 \text{ ohms}$$

$$R1 = 2 \text{ ohm} \quad R4 = 3 \text{ ohms}$$

5.

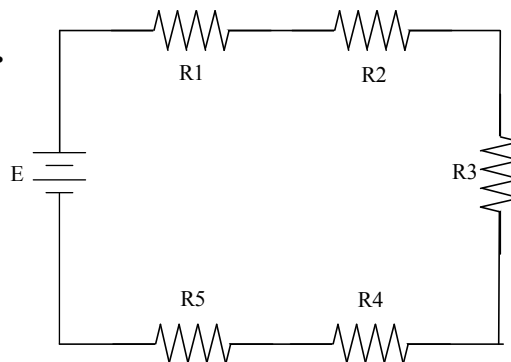


$$E = 24 \text{ volts} \quad R2 = 0.5 \text{ ohms} \quad R5 = 0.25 \text{ ohms}$$

$$I_T = 12 \text{ amperes} \quad R3 = \underline{\hspace{2cm}}$$

$$R1 = 0.5 \text{ ohms} \quad R4 = 0.5 \text{ ohms}$$

6.



$$E = 24 \text{ volts} \quad R2 = 1 \text{ ohm} \quad R5 = 2 \text{ ohms}$$

$$I_T = 3 \text{ amperes} \quad R3 = 2 \text{ ohms}$$

$$R1 = 2 \text{ ohms} \quad R4 = \underline{\hspace{2cm}}$$