

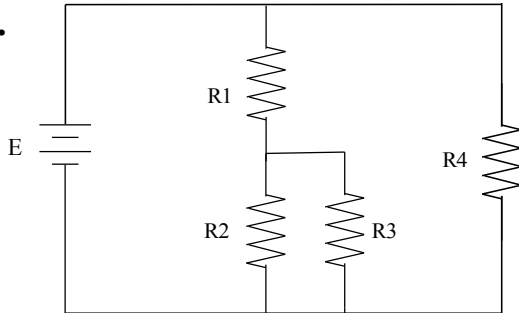
Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

## Series-Parallel Circuit Worksheet #3

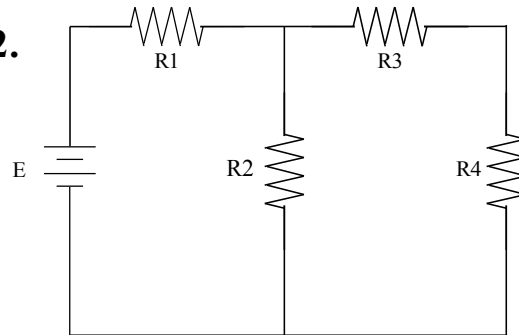
Meets NATEF Task: (A6-A-2) Diagnose Electrical/Electronic Integrity for Series, Parallel, and Series-Parallel Circuits Using Principles of Electricity (Ohm's Law).

1.



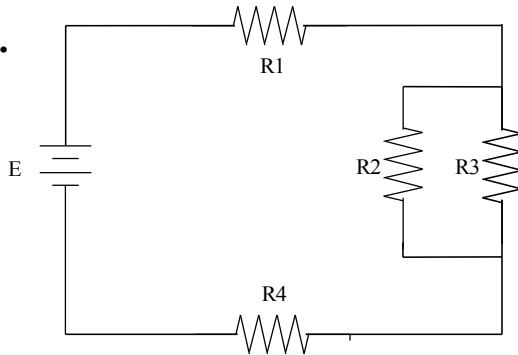
$$\begin{aligned} E &= 12 \text{ volts} & R2 &= 12 \text{ ohms} \\ I_T &= 2 \text{ amperes} & R3 &= \underline{\hspace{2cm}} \\ R1 &= 6 \text{ ohms} & R4 &= 12 \text{ ohms} \end{aligned}$$

2.



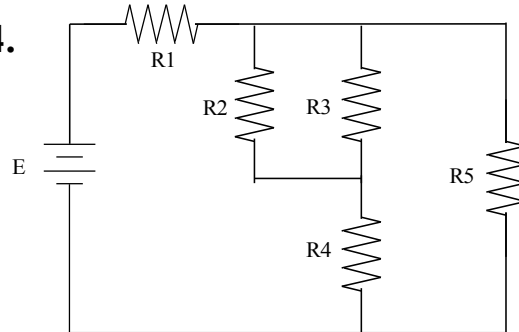
$$\begin{aligned} E &= 24 \text{ volts} & R2 &= 8 \text{ ohms} \\ I_T &= \underline{\hspace{2cm}} & R3 &= 4 \text{ ohms} \\ R1 &= 2 \text{ ohms} & R4 &= 4 \text{ ohms} \end{aligned}$$

3.



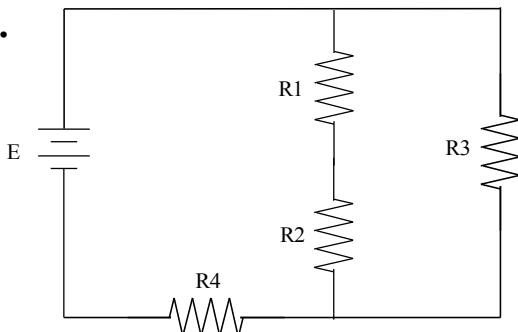
$$\begin{aligned} E &= \underline{\hspace{2cm}} & R2 &= 12 \text{ ohms} \\ I_T &= 1 \text{ ampere} & R3 &= 12 \text{ ohms} \\ R1 &= 2 \text{ ohms} & R4 &= 4 \text{ ohms} \end{aligned}$$

4.



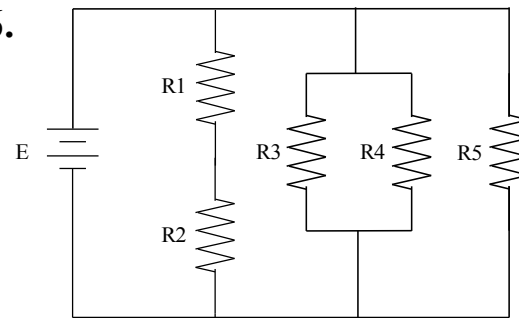
$$\begin{aligned} E &= 24 \text{ volts} & R2 &= 12 \text{ ohms} & R5 &= 12 \text{ ohms} \\ I_T &= \underline{\hspace{2cm}} & R3 &= 12 \text{ ohms} \\ R1 &= 6 \text{ ohms} & R4 &= 6 \text{ ohms} \end{aligned}$$

5.



$$\begin{aligned} E &= 24 \text{ volts} & R2 &= 2 \text{ ohms} \\ I_T &= 6 \text{ amperes} & R3 &= \underline{\hspace{2cm}} \\ R1 &= 2 \text{ ohms} & R4 &= 2 \text{ ohms} \end{aligned}$$

6.



$$\begin{aligned} E &= \underline{\hspace{2cm}} & R2 &= 4 \text{ ohms} & R5 &= 4 \text{ ohms} \\ I_T &= 12 \text{ amperes} & R3 &= 16 \text{ ohms} \\ R1 &= 4 \text{ ohms} & R4 &= 16 \text{ ohms} \end{aligned}$$