

Parallel Circuit Task Sheet #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.

$E = 12 \text{ volts}$ $R2 = 8 \text{ ohms}$ $R5 = 8 \text{ ohms}$
 $I_T = \underline{\hspace{2cm}}$ $R3 = 8 \text{ ohms}$
 $R1 = 8 \text{ ohms}$ $R4 = 8 \text{ ohms}$

2.

$E = 24 \text{ volts}$ $R2 = 4 \text{ ohms}$ $R5 = 4 \text{ ohms}$
 $I_T = \underline{\hspace{2cm}}$ $R3 = 4 \text{ ohms}$
 $R1 = 4 \text{ ohms}$ $R4 = 4 \text{ ohms}$

3.

$E = \underline{\hspace{2cm}}$ $R2 = 2 \text{ ohms}$ $R5 = 4 \text{ ohms}$
 $I_T = 6 \text{ amperes}$ $R3 = 2 \text{ ohms}$
 $R1 = 2 \text{ ohms}$ $R4 = 2 \text{ ohms}$

4.

$E = 12 \text{ volts}$ $R2 = \underline{\hspace{2cm}}$
 $I_T = 4 \text{ amperes}$ $R3 = 4 \text{ ohms}$
 $R1 = 9 \text{ ohms}$ $R4 = 9 \text{ ohms}$

5.

$E = 24 \text{ volts}$ $R2 = 12 \text{ ohms}$
 $I_T = 6 \text{ amperes}$ $R3 = \underline{\hspace{2cm}}$
 $R1 = 12 \text{ ohms}$ $R4 = 6 \text{ ohms}$

6.

$E = 12 \text{ volts}$ $R2 = 12 \text{ ohms}$
 $I_T = 2 \text{ amperes}$ $R3 = 18 \text{ ohms}$
 $R1 = \underline{\hspace{2cm}}$ $R4 = 18 \text{ ohms}$