

## Series Circuit Worksheet #2

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

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

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

**1.**

$E = \underline{\hspace{2cm}}$       $R2 = 1 \text{ ohm}$   
 $I_T = 8 \text{ amperes}$       $R3 = 1 \text{ ohm}$   
 $R1 = 1 \text{ ohm}$

**2.**

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

**3.**

$E = 24 \text{ volts}$       $R2 = 1 \text{ ohm}$   
 $I_T = 4 \text{ amperes}$       $R3 = \underline{\hspace{2cm}}$   
 $R1 = 3 \text{ ohms}$

**4.**

$E = 12 \text{ volts}$       $R2 = \underline{\hspace{2cm}}$       $R5 = 1 \text{ ohm}$   
 $I_T = 2 \text{ amperes}$       $R3 = 2 \text{ ohms}$   
 $R1 = 1 \text{ ohm}$       $R4 = 1 \text{ ohm}$

**5.**

$E = 24 \text{ volts}$       $R2 = 4 \text{ ohms}$       $R5 = 1 \text{ ohm}$   
 $I_T = 2 \text{ amperes}$       $R3 = \underline{\hspace{2cm}}$   
 $R1 = 2 \text{ ohms}$       $R4 = 1 \text{ ohm}$

**6.**

$E = \underline{\hspace{2cm}}$       $R2 = 1 \text{ ohm}$       $R5 = 2 \text{ ohms}$   
 $I_T = 3 \text{ amperes}$       $R3 = 2 \text{ ohms}$   
 $R1 = 2 \text{ ohms}$       $R4 = 1 \text{ ohm}$