Combined Electric Circuits Quiz

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_

**I. Simplify the following electric circuits. Show your work to get full credit.**

|  |  |  |
| --- | --- | --- |
| **SERIES** | **PARALLEL** | **Formulas** |
| V=V1+V2+V3+… | V=V1 =V2=V3=… | **V=IR** |
| I=I1=I2=I3=... | I=I1 + I2+ I3+… | **P=IV=I2R** |
| R=R1+R2+R3+… | $\frac{1}{R\_{T}}=\frac{1}{R\_{1}}+\frac{1}{R\_{2}}+\frac{1}{R\_{3}}$+… | **E=Pt** |

1.

SIMPLIFY & DRAW THE CIRCUIT STEP BY STEP.

1.

2.

3.

4.



a. Total Resistance in the circuit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Current flowing in the circuit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Voltage on the 8Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. Voltage on the 3Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e. Voltage on the 6Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

f. Current on the 6Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g. Current on the 3Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

h. Current on the 5Ω resistor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_