

639 P3J

$$I = 6A$$
$$t = 5 \text{ Hr}$$
$$V = 12V$$

$$P = \frac{W}{t} = \frac{E}{t} = IV$$

$$\frac{E}{(5 \text{ hr} \times \frac{3600 \text{ s}}{\text{hr}})} = (6A)(12V)$$

$$\frac{E}{18,000 \text{ s}} = 72W$$

$$E = (72W)(18,000 \text{ s})$$



49
 $R_1 = 16\Omega$
 $R_2 = 8\Omega$
Parallel

$$\frac{1}{R_{\text{eq}}} = \frac{1}{R_1} + \frac{1}{R_2}$$
$$\frac{1}{R_{\text{eq}}} = \frac{1}{16} + \frac{1}{8} = \frac{1}{16} + \frac{2}{16} = \frac{3}{16} = \frac{1}{R}$$

$R = \frac{16}{3}\Omega$



6B 9 P6

$$9V = V$$

$$1.1 \times 10^5 J = E$$

$$t = 6 \text{ hr} = 21,600 \text{ s}$$

$$V = IR$$

$$P = \frac{W}{t} = \frac{E}{t}$$

$$P = IV = \frac{V^2}{R}$$

$$\frac{E}{t} = \frac{V^2}{R}$$

$$\frac{(1.1 \times 10^5 J)}{21,600 \text{ s}} = \frac{(9V)^2}{R}$$

$$R = 15.9 \Omega$$

R = ?

42

$$I_1 = 0.12 \text{ A}$$

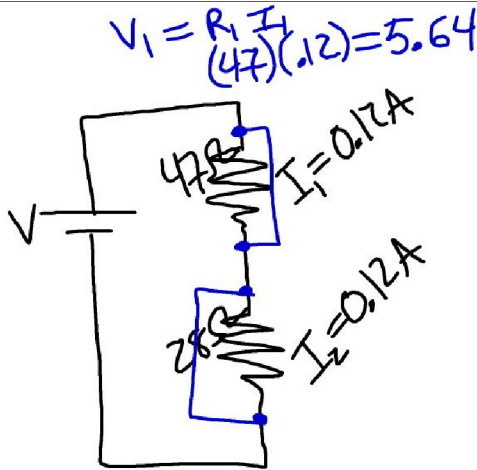
$$R_1 = 47 \Omega$$

Series

$$R_2 = 28 \Omega$$



WANT: V = ?



$$V_1 = R_1 I_1$$

$$(47)(0.12) = 5.64$$

$$R_{eq} = R_1 + R_2$$

$$R = 75 \Omega$$

$$V = IR_{eq}$$

$$= (0.12)(75)$$

$$V = 9V$$

$$V_2 = R_2 I_2$$

$$= 3.36$$

$$V_{net} = V_1 + V_2$$

$$= 5.64 + 3.36 = 9V$$

