

$$\textcircled{1} \quad \begin{array}{l} V = I \times R \\ I = V / R \\ R = V / I \end{array}$$

$$V_1 = I_1 \times R_1$$

$$V_1 = (3.55) \times (2.90)$$

$$V_1 = 10.3 \text{ V}$$

$$\begin{array}{l} R_2 = V_2 / I_2 \\ = (9.75) / 3.55 \\ R_2 = 2.75 \Omega \end{array}$$

$$\begin{array}{l} V_3 = V_T - V_1 - V_2 \\ = 35 - 10.3 - 9.75 \end{array}$$

$$V_3 = 14.95 \text{ V}$$

$$V_1 + V_2 + V_3 = V_T$$

$$\begin{array}{l} R_3 = V_3 / I_3 \\ = 14.95 / 3.55 \\ R_3 = 4.21 \Omega \end{array}$$

$$\textcircled{2} \quad I_T = I_1 + I_2 + I_3$$

$$4.0 = 0.67 + 2.6 + I_1$$

$$4.0 = 3.27 + I_1$$

$$4.0 - 3.27 = I_1$$

$$\textcircled{0.73 = I_1}$$

$$V_2 = 10V \quad *$$

$$V_3 = 10V \quad *$$

$$V_{\text{Battery}} = 10V$$

$$V_1 = I_1 \times R_1$$

$$V_1 = 0.73 \times 13.7$$

$$\textcircled{V_1 = 10V}$$

$$R_2 = V_2 / I_2$$

$$= 10 / 2.6$$

$$\textcircled{= 3.85 \Omega}$$

$$R_3 = V_3 / I_3$$

$$= 10 / 0.67$$

$$\textcircled{= 14.93 \Omega}$$