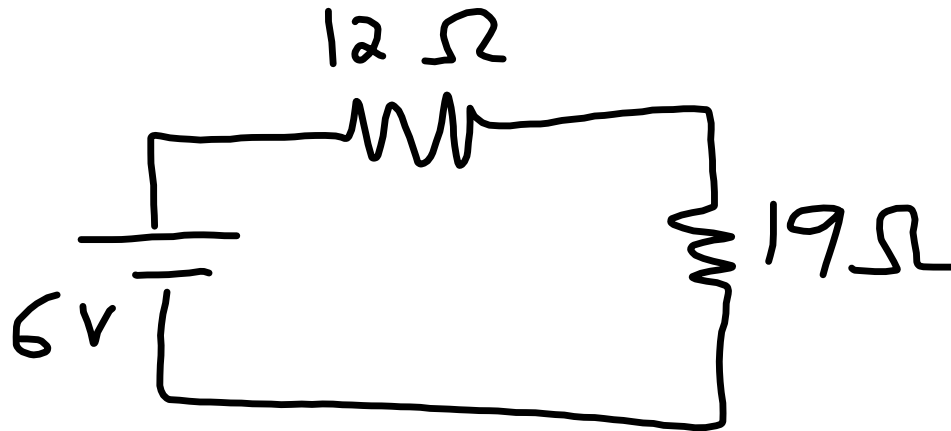


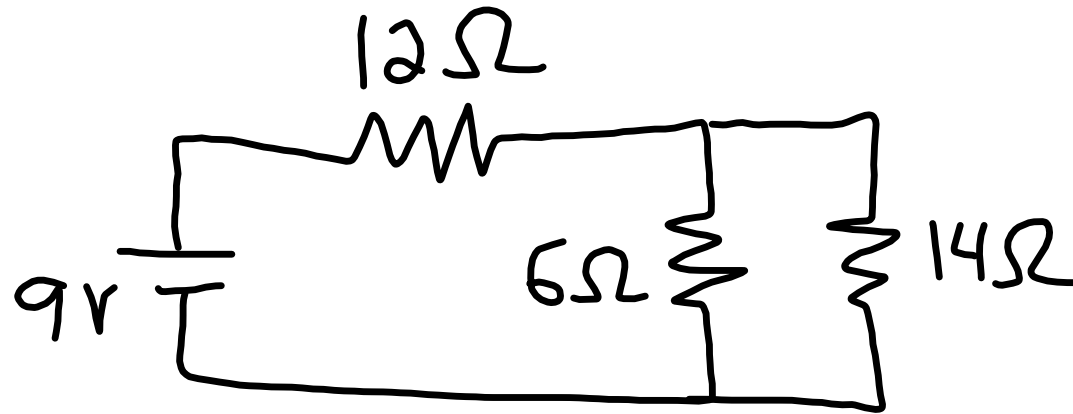
All solutions on page following circuit!

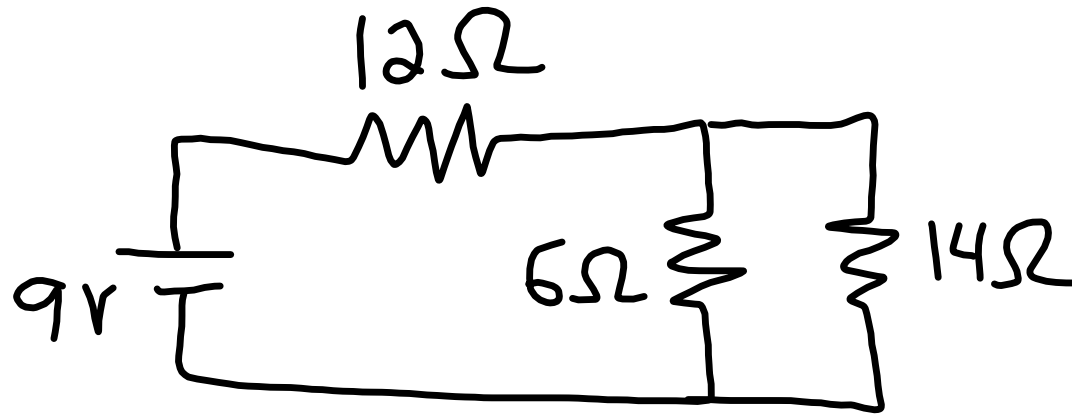


$$R_{\text{tot}} = 31 \text{ Ohms} \quad V_{12} = 2.28 \text{ V}$$

$$I_{\text{tot}} = 0.19 \text{ A} \quad I_{19} = 0.19 \text{ A}$$

$$I_{12} = 0.19 \text{ A} \quad V_{19} = 3.61 \text{ V}$$

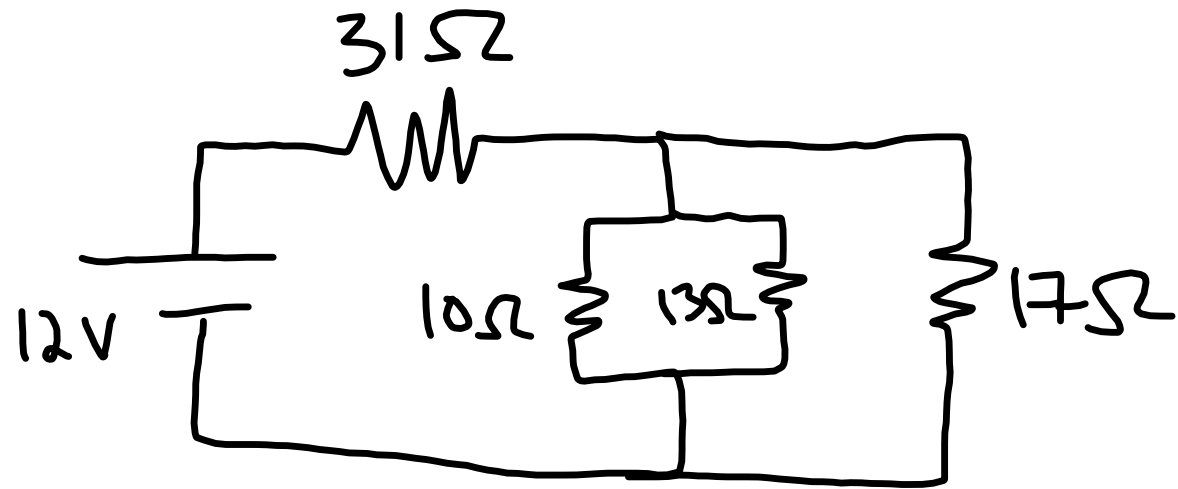


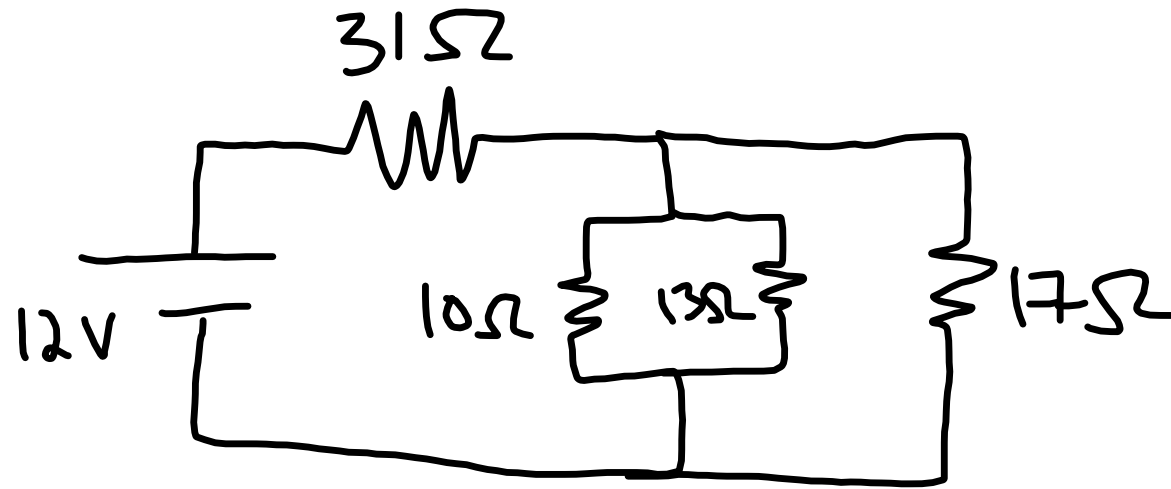


$$R_{\text{tot}} = 16.2 \text{ Ohms} \quad V_{12} = 6.72 \text{ V} \quad V_{14} = 2.28 \text{ V}$$

$$I_{\text{tot}} = 0.56 \text{ A} \quad V_6 = 2.28 \text{ V} \quad I_{14} = 0.16 \text{ A}$$

$$I_{12} = 0.56 \text{ A} \quad I_6 = 0.38 \text{ A}$$

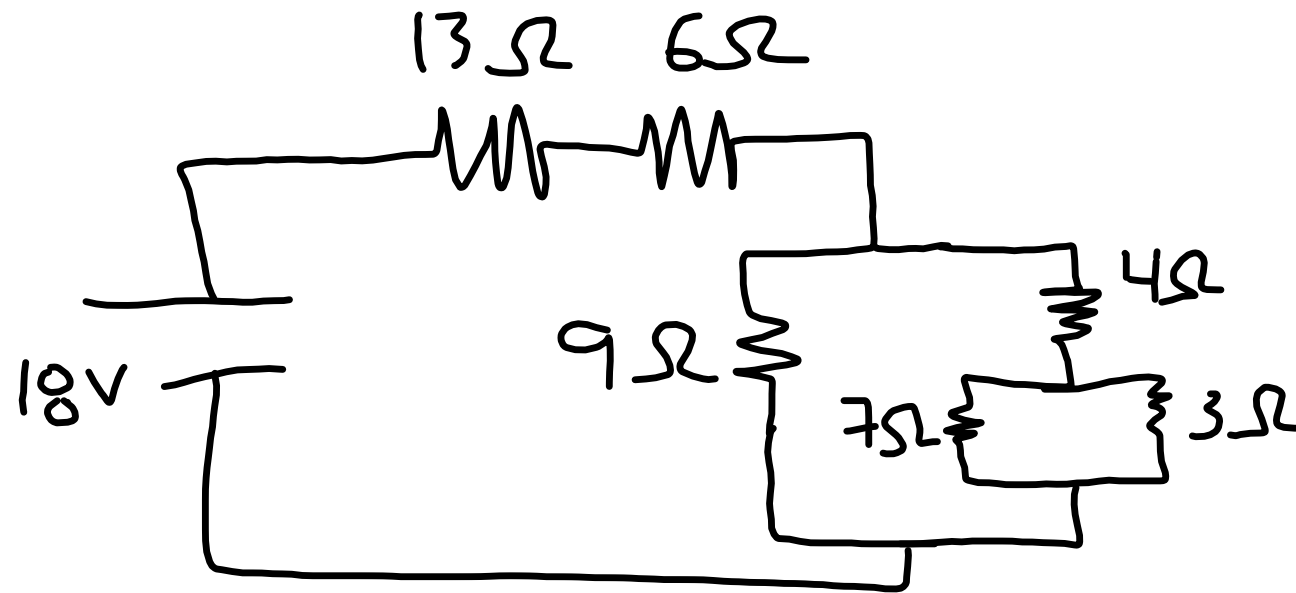


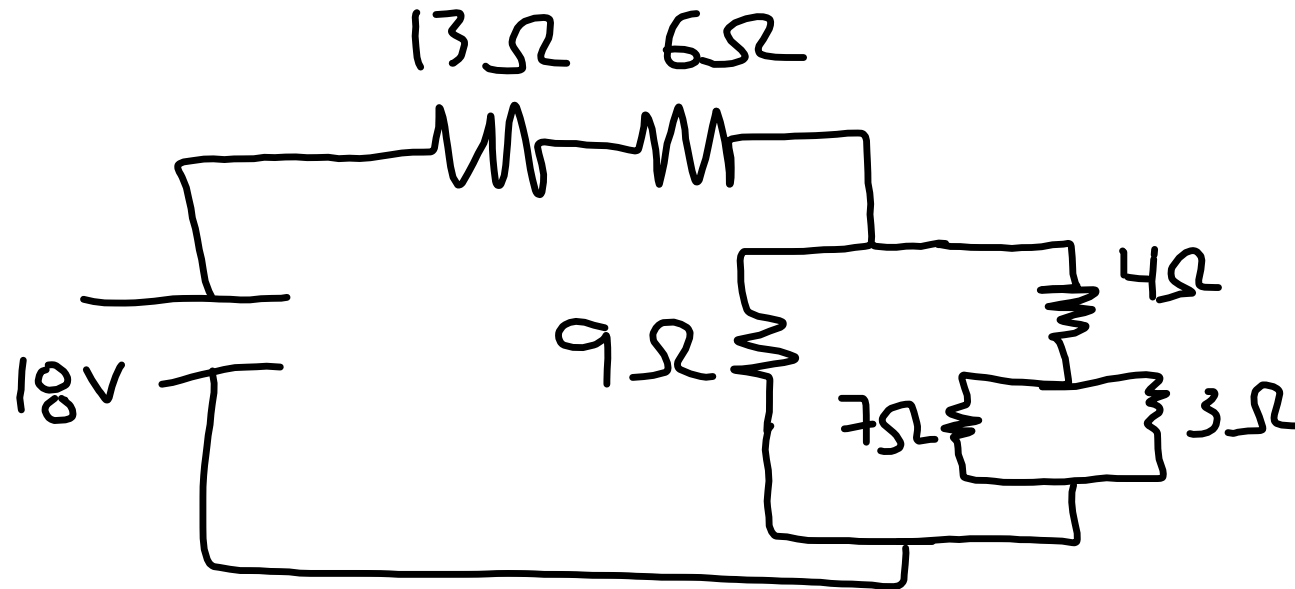


$$R_{\text{tot}} = 35.24 \text{ Ohms} \quad V_{31} = 10.54 \text{ V} \quad V_{13} = 1.46 \text{ V} \quad I_{17} = 0.086 \text{ A}$$

$$I_{\text{tot}} = 0.34 \text{ A} \quad V_{10} = 1.46 \text{ V} \quad I_{13} = 0.112 \text{ A}$$

$$I_{31} = 0.34 \text{ A} \quad I_{10} = 0.146 \text{ A} \quad V_{17} = 1.46 \text{ V}$$





$$R_{\text{tot}} = 22.64 \text{ Ohms} \quad V_{13} = 10.34 \text{ V} \quad V_9 = 2.89 \text{ V} \quad I_{4,7,3} = 0.47 \text{ A} \quad V_7 = 1.01 \text{ V} \quad I_3 = 0.34 \text{ A}$$

$$I_{\text{tot}} = 0.795 \text{ A} \quad I_6 = 0.795 \text{ A} \quad I_9 = 0.32 \text{ A} \quad I_4 = 0.47 \text{ A} \quad I_7 = 0.144 \text{ A}$$

$$I_{13} = 0.795 \text{ A} \quad V_6 = 4.77 \text{ V} \quad V_{4,7,3} = 2.89 \text{ V} \quad V_4 = 1.88 \text{ V} \quad V_3 = 1.01 \text{ V}$$