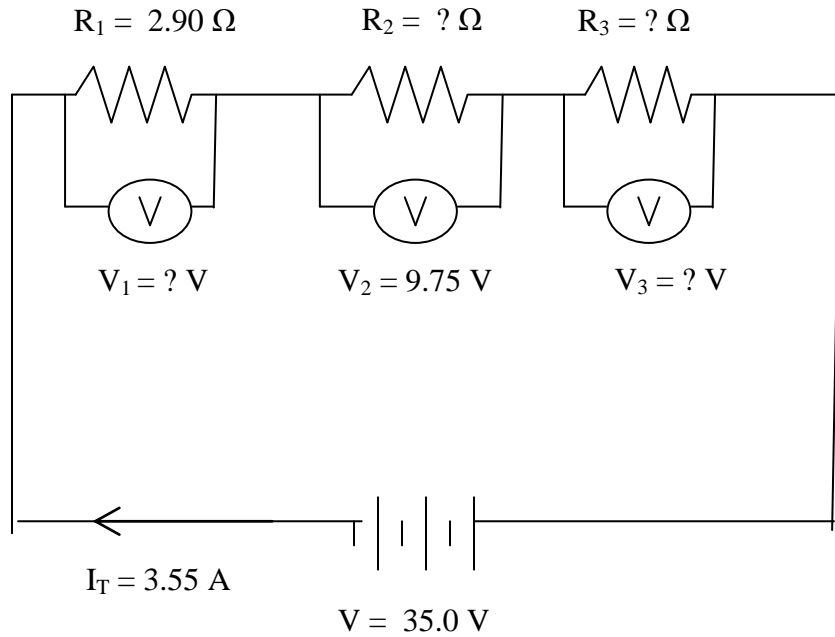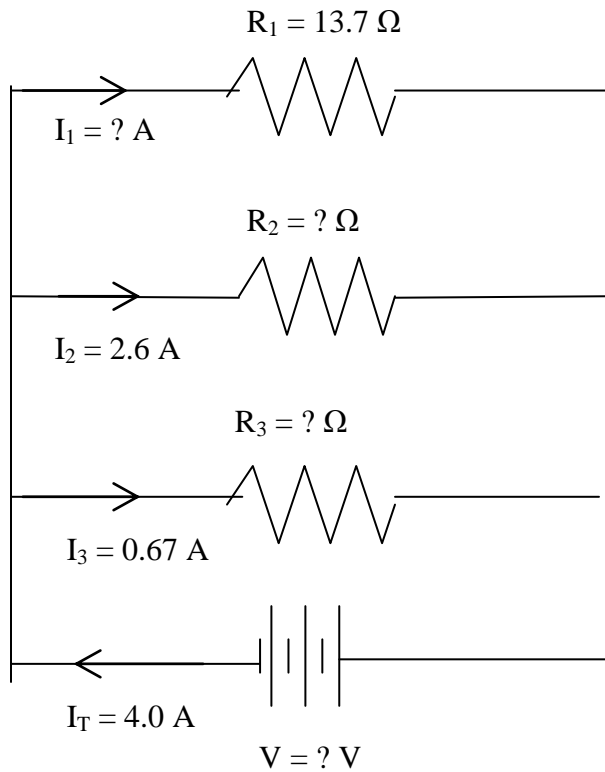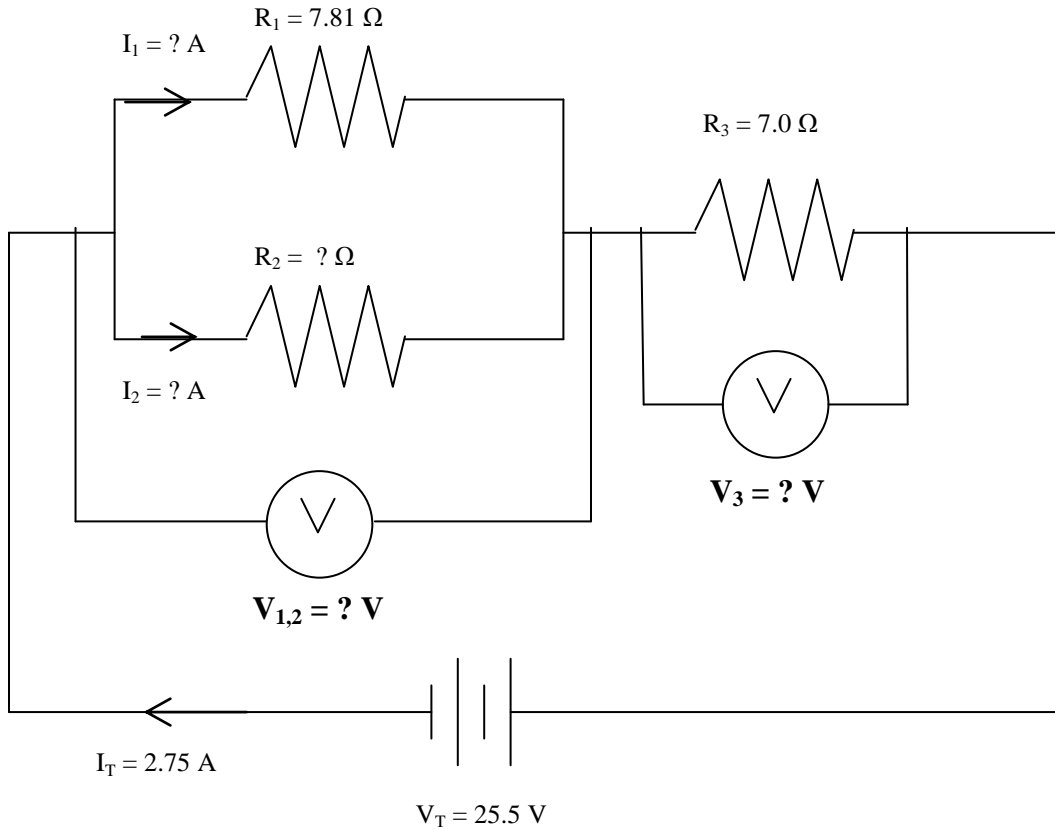1. Use your knowledge of series circuits to find all of the missing values. Show all of your formulas, steps, units, and keep two decimal places in your answer.

$R_1 = 2.90 \ \Omega$ $R_2 = \ ? \ \Omega$ $R_3 = \ ? \ \Omega$

$V_1 = \ ? \ V$ $V_2 = 9.75 \ V$ $V_3 = \ ? \ V$

$I_T = 3.55 \ A$

$V = \ 35.0 \ V$

2. Use your knowledge of parallel circuits to find all of the missing information. Show all of your formulas, steps, units, and keep two decimal places in your answer.

$R_1 = 13.7 \ \Omega$

$I_1 = \ ? \ A$

$R_2 = \ ? \ \Omega$

$I_2 = 2.6 \ A$

$R_3 = \ ? \ \Omega$

$I_3 = 0.67 \ A$

$I_T = 4.0 \ A$

$V = \ ? \ V$

3. Use your knowledge of series and parallel circuits to find all of the missing information. Show all of your formulas, steps, units, and keep two decimal places in your answer.

$R_1 = 7.81 \; \Omega$

$I_1 = ? \; A$

$R_3 = 7.0 \; \Omega$

$R_2 = \; ? \; \Omega$

$I_2 = ? \; A$

$V_3 = ? \; V$

$V_{1,2} = ? \; V$

$I_T = 2.75 \; A$

$V_T = 25.5 \; V$

4. Two resistors are connected in series. A total of 14 V is drawn from the power source, the first resistor has a resistance of 25 Ω, and the second has a resistance of 3.5 Ω. Find the current and voltage across each resistor.

5. Two resistors are connected in parallel. The first resistor has a resistance of 22 Ω and the voltage across it is 7.5 V. The current going through the second resistor is measured to be 0.65 A. What is the current going through the first resistor, the total current from the power source, and the resistance of the second resistor?

6. Three resistors are assembled in series. The second resistor has the same resistance as the first, and the third has twice the resistance of the first. The voltage and current coming from the power source is 32 V and 2.0 A. What is the voltage across each resistor and the resistance of each resistor?