When solving circuit diagrams, follow this order of operations to find values.

1) Find the resistance in any parallel sections. \( \frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2} \ldots \) or \( R_T = (R_1^{-1} + R_2^{-1})^{-1} \)

2) Find the resistance in the total circuit. \( R_T = R_1 + R_2 + R_3 \ldots \) (each parallel section acts like a single resistor for this part)

3) Find the overall current \( (A_o) \) in the circuit. \( I = \frac{V}{R} \)
   a) this will be the current at any point in series
   b) current will split at parallel sections

4) Find the voltage drop across each resistor. \( V = I R \)
   a) use the overall current \( (A_o) \) in calculations
   b) for a parallel section, use the overall current \( (A_o) \) and \( R_T \) for that section, voltage drop in each path of the parallel section is the same

5) Find the current through each path of the parallel sections. \( I = \frac{V}{R} \)
   a) use the voltage drop for that section and the individual resistance of each path

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P = V I
\]