READINGS: Electronics Workbook 2 (ew2.pdf): Pages 1-50, 90.
Armstrong (armstrong.pdf): Chapters 12 - 13.

Assignment is due at the beginning of the next class, a one question quiz on this homework occurs after the lecture.

5A1) What did Armstrong order when he was persuaded to take off time from his research to go to a fancy French restaurant?

5A2) When FM threatened AM radio's profits, what dirty scheme was cooked up and was successful in setting back, at least for a time, the commercial progress of FM? (known as *the really dirty scheme*)

Review Problems

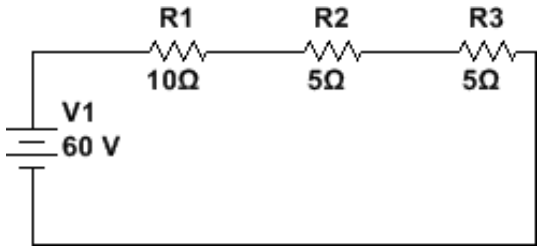

Figure 5.1 Series Circuit

5.B1) Referring to **Figure 5.1 Series Circuit:**
5.B1a) Find the total resistance of the three resistors in series.
5.B1b) Find I.
5.B1c) Find the voltage across each resistor, $\mathbf{V_{R1}}$, $\mathbf{V_{R2}}$, and $\mathbf{V_{R3}}$.
5.B1d) Do the three voltages add up to the supply voltage?
5.B1e) Find the power being dissipated in each resistor **R1**, **R2** and **R3**.
5.B1f) Add up the three powers to find the total power leaving the source.
5.B1g) Find the total power leaving the source another way - use the total equivalent resistance of the three resistors. Do you get the same answer?

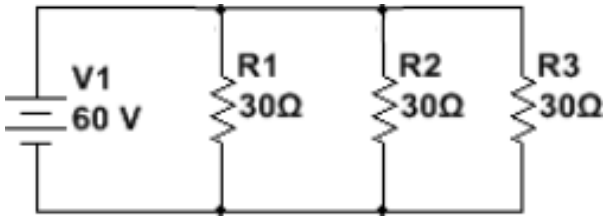

Figure 5.2 Parallel Circuit

5.B2) Referring to **Figure 5.2 Parallel Circuit:**
5.B2a) Find $\mathbf{I_1}$, $\mathbf{I_2}$ and $\mathbf{I_3}$. (these are the currents in **R1**, **R2** and **R3**)
5.B2b) Find total **I** leaving the source by adding the currents found in **5.B2a** above.
5.B2c) Find the power being dissipated in each resistor **R1**, **R2** and **R3**.
5.B2d) Find the total power leaving the source.
5.B2e) Find the equivalent resistance of the three resistors in parallel.
5.B2f) Find the total current leaving the source using just the supply voltage and the equivalent resistance. Does result agree with part **5.B2b** above?
5.B2g) Find the total power leaving the source using just the source voltage and the equivalent resistance. Does the result agree with part **5.B2d** above?