ENGR 2300, Electronic Instrumentation, Quiz 1, Fall 2016, Part A

1. For the circuit shown at the right and given values for $\mathrm{V} 1, \mathrm{R} 1, \mathrm{R} 2, \mathrm{R} 3$, determine currents, voltages and power.
a. Voltage across R3
b. Current through R1
c. Voltage across R2
d. Power from V1

2. For the circuits such as the one shown below constructed from resistors, inductors and capacitors, simplify for high frequencies and low frequencies and then obtain answers like the ones shown in the first problem.

3. A basic transformer circuit is shown below. Given values for $R_{s}, R_{L}, L_{S}, L_{L}$ and $V_{S}$ determine the output voltage, output power, etc.

