Notes for HW 1 on resistor circuits

In general, to solve for any V, I and $R_{eq}$ in these circuits

1. Label and number all currents, voltages and resistances
2. Calculate the total equivalent resistance in the circuit, $R_{eq}$, using the methods for determining the resistance of series and parallel resistors
3. Solve for the total current from the voltage source $I_s = V_s/R_{eq}$ where $V_s$ is the voltage of the voltage source in the circuit
4. Solve for remaining voltages, V, and currents, I, as requested using Ohm’s law and the two circuit laws
   a. Ohm’s law: $V = IR$
   b. KCL: the sum of currents into a node (with those flowing out being negative) is zero
   c. KVL: the sum of voltages around a node is zero
5. Recall that diodes act either as a resistance of 0 or of infinity