1. In the following circuit
   a) Label appropriate currents, draw loops and label nodes
   b) Write down Kirchoff’s rules
   c) Calculate the total currents leaving the power supplies and the total power output of each power supply.
   d) Calculate the voltage across, current passing through, and power dissipated in each resistor

2. In problem #1, $R_1$ is actually the equivalent resistance of two parallel resistors, one of which is 1 k-ohm. What is the other resistance?

3. Three light bulbs are connected to a battery. If bulb 2 burns out, what happens to the brightness of the remaining bulbs? Explain!