EE271A Quiz 1 Fall 2015 Name_____

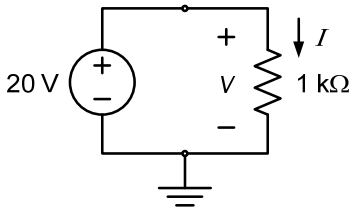
In this quiz, you are welcome to use your lab notebook as well as the lab manual.

1. (10 points) What is the minimum value of electric current that could result in electrocution?

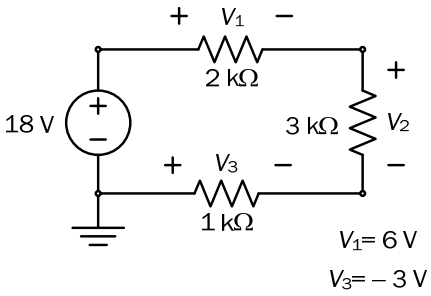
2. (10 points) While working with electricity, you should <u>not</u> (a) work with wet hands; (b) cut wires carrying electric current; (c) install or remove any electrical components while the circuit is connected to a power source. Which part is false?

3. (20 points) What color bands would be used to label a 27 kΩ resistor with 10% tolerance?

4. (20 points) Is it safe to use a resistor that can handle 0.5 W in the circuit below?



5. (20 points) Voltages V_1 and V_3 in the circuit shown below are measured to be 6 V and –3 V respectively. Determine the value of voltage V_2.



6. (20 points) Suppose in the circuit below that the two currents I_2 and I_3 are measured to be I_2 = –4 mA and I_3 = 2 mA. Determine the value of current I_1.