Physics 4700 HOMEWORK 1
Due September 14

1) Simpson P47 problem 4.
2) Simpson P47 problem 11.
3) Simpson P48 problem 14.
4) Simpson P49 problem 17.
5) Simpson P50 problem 28.
6) Simpson P50 problem 30.
7) Simpson P52 problem 42. What's the largest value R can be if we want the voltmeter to always be within 10% of the correct voltage?

Additional problems (10 points each):
8) Show that the resistance of this infinite network of resistors is:
   $R_T = (1+\sqrt{3})R$ with R_T the resistance looking into the network.
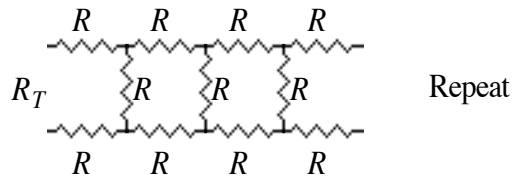
9) Find the current going through each resistor and the voltage drop across each resistor. The resistor values are in Ohms.