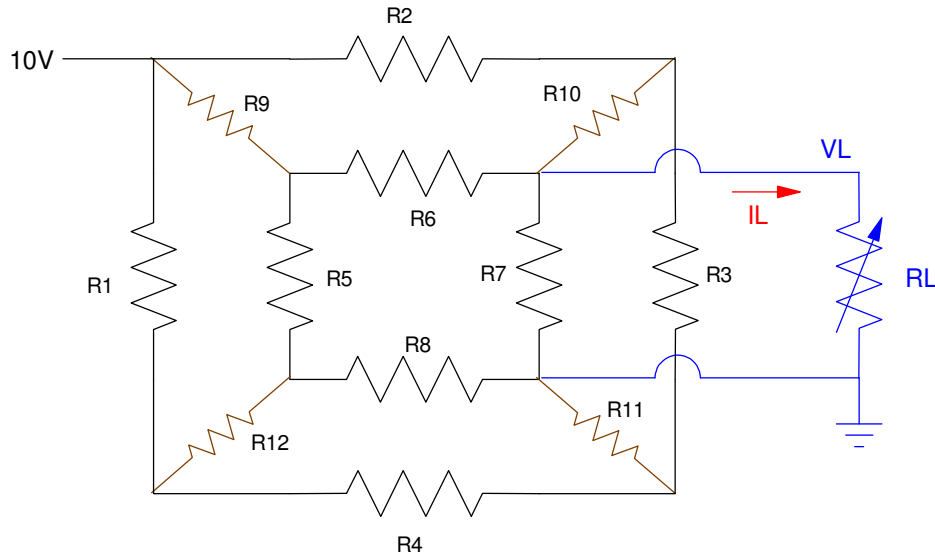


# EE 206: Lab #5

Thevenin Equivalents: 2 people per group

Using the resistor cube you built last week, attach +10V to one corner and 0V to the other corner.

Add a resistor in parallel with R7:



Record the resistor values (should be the same as you used in Lab 1)

R1	R2	R3	R4	R5	R6
R7	R8	R9	R10	R11	R12

- 1) Measure the voltage  $V_L$  and compute the current  $I_L$  for eight different values of  $R_L$   
(see table following page)
- 2) Plot  $V_L$  vs.  $I_L$  on a graph. Do the points line up on a line?
- 3) Determine the Thevenin equivalent for this circuit based upon your experimental data.
- 4) Determine the power to the load for each value of  $R_L$   
What value of  $R_L$  maximizes the power to the load?

Lab #4 - Thevenin Equivalents and Maximum Power			
RL	VL (measured)	IL (computed)	Power to Load VL * IL
0 (short circuit)			0 Watts
infinity (open circuit)			0 Watts

### Thevenin Equivalent

Vth	Rth

