Cruel and Unusual DC Circuits*

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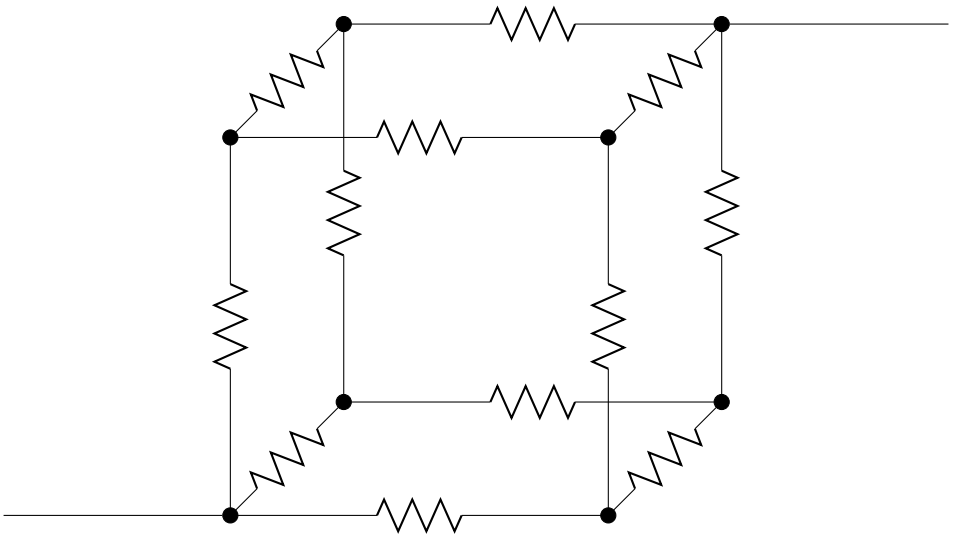
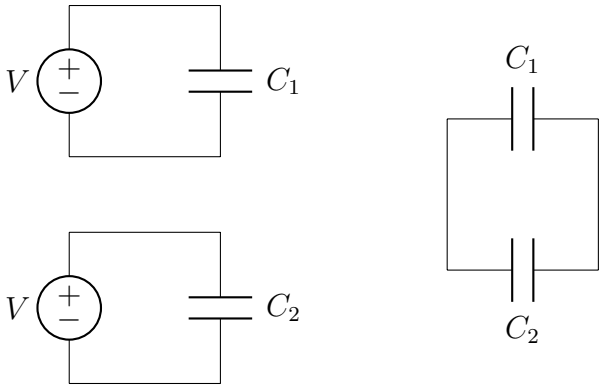
1. Find the equivalent resistance of the following resistor network, given that each resistor has a resistance R.



2. Two capacitors, with capacitances C_1 and C_2, are charged separately by a voltage source V. They are then connected in series with no voltage source. Find the ratio of the energies stored originally to the energy stored once the capacitors are connected.

*Some problems adapted from MIT 8.02 course notes.



3. Find currents everywhere.