

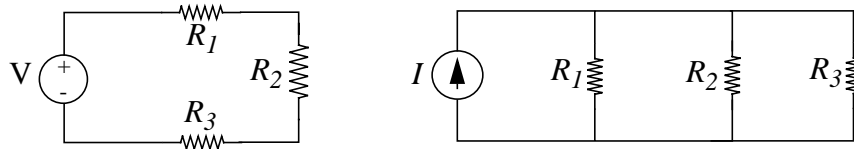
Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

6.002 - Electronic Circuits
Fall 2000

Homework #1
Handout F00-011

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Exercise 1-1: For both networks shown below, find the voltage across and the current through each element in the network. Be sure to make the polarity of the voltages and currents clear. Also, find the power generated or dissipated by each network element, and show that energy is conserved in total over the network.



Exercise 1-2: Beginning with 1k resistors, synthesize a resistor of $3/5k$ and a resistor of $5/3k$. Use no more than four 1k resistors in each case.

Problem 1-1: Problem 6 from Chapter 1 of the course notes.

Problem 1-2: Find the equivalent resistance of the following networks as viewed from their ports.

