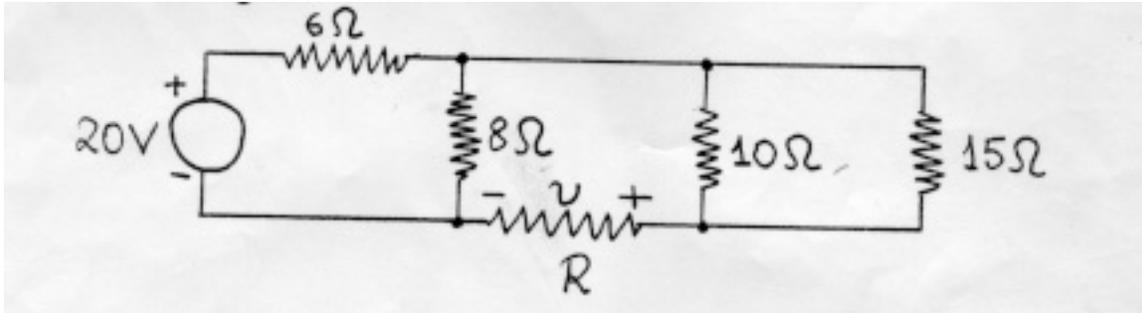


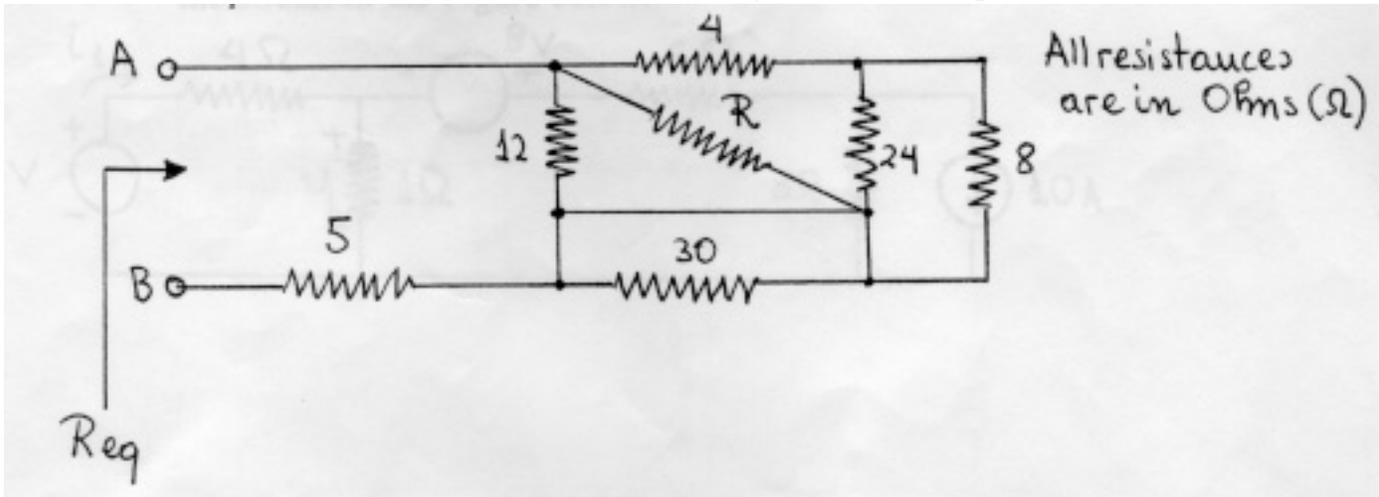
EECS 42, Spring, 1995
Midterm #1
Professor Paul Hagouel

Problem #1

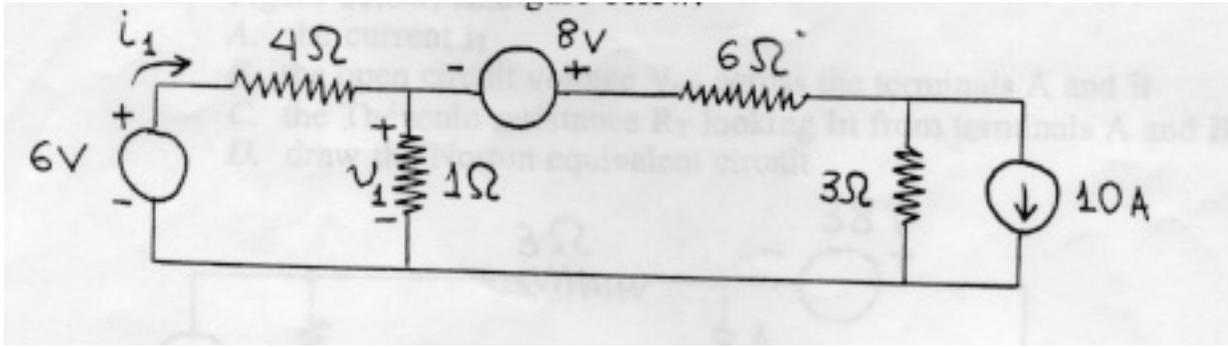
(Resistor circuits): If $v = 2$ V, find the resistance R of the circuit in the Figure below.

**Problem #2**

(Resistor combinations): If for the circuit in the Figure below $R_{eq} = 9$ Ohms, find the resistance R .

**Problem #3**

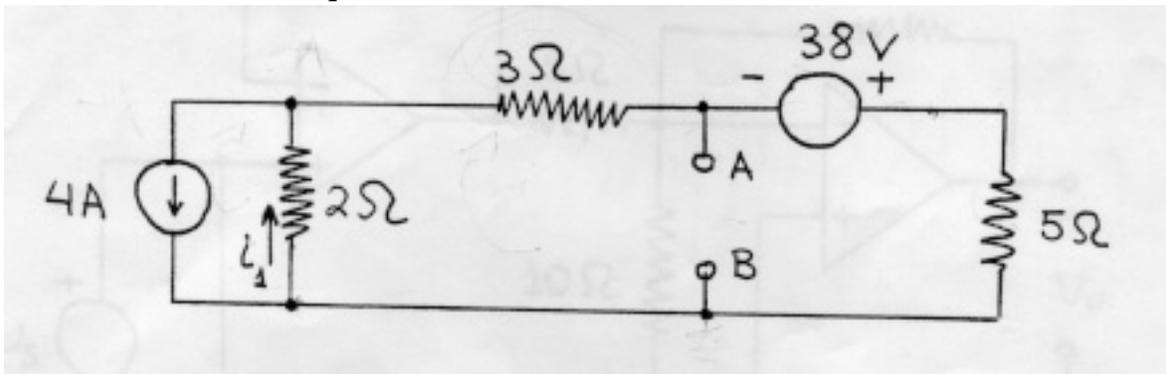
(Mesh analysis, KCL, KVL): Find i_1 and v_1 using mesh analysis for the circuit in the Figure below.



Problem #4

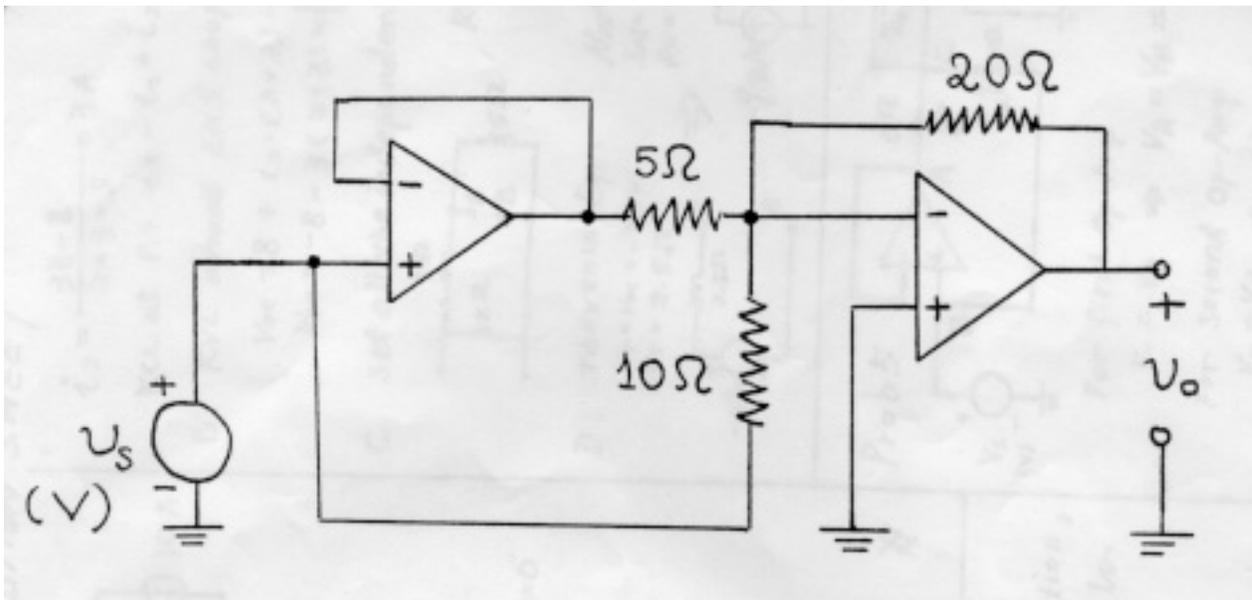
(Thevenin and Norton equivalent circuits): For the circuit in the Figure below, find:

- the current i_1
- the open circuit voltage V_{oc} across the terminals A and B
- the Thevenin resistance R_t looking in from terminals A and B
- draw the Norton equivalent circuit



Problem #5

(Operational Amplifiers): Determine V_0 for the circuit below when all operational amplifiers are ideal.



Solutions!

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