

EECS/CSE 70A Network Analysis I

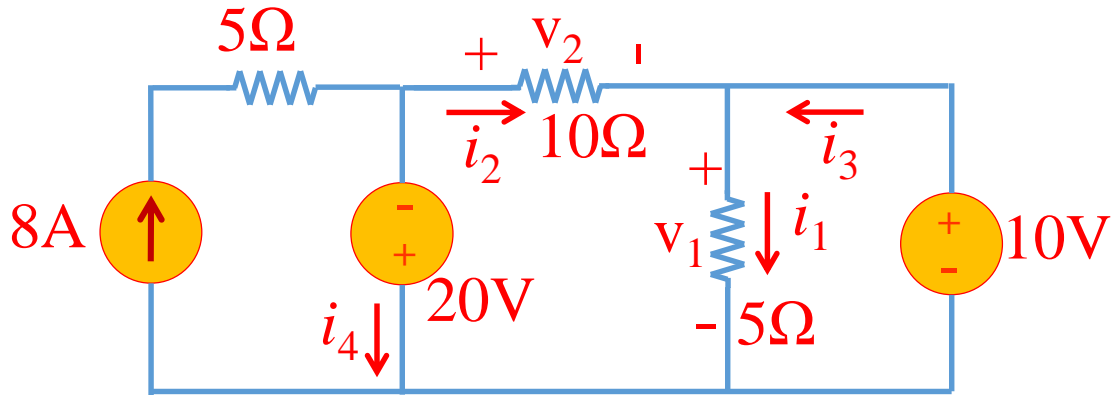
Homework #3

Due on or before

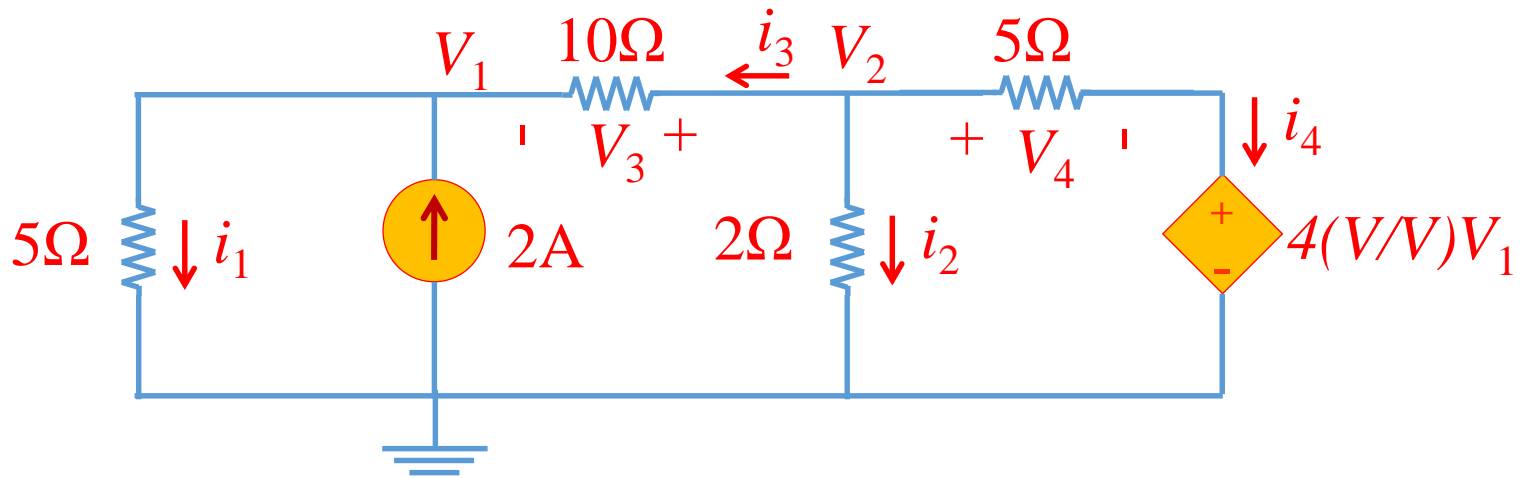
4/26/2018, Thursday at 10:00AM

(You can submit your homework in any of the discussion sessions only on either Tuesday 4/24 or Thursday 4/26)

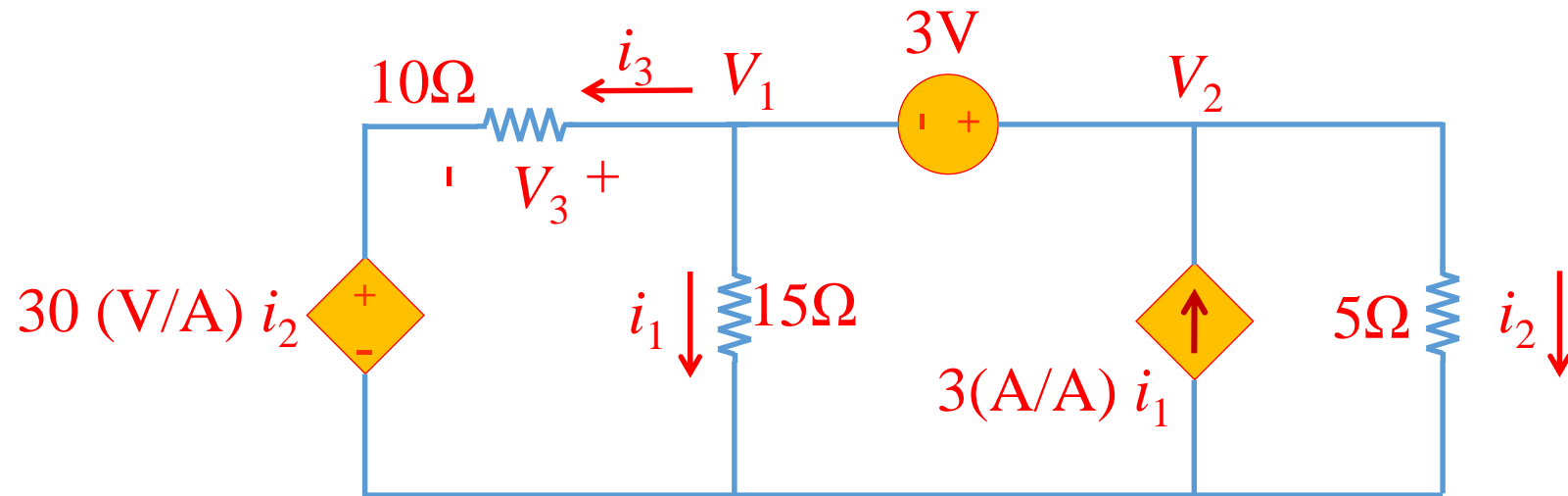
Problem 1: (KCL, KVL, Ohm's Law) Find currents i_1 , i_2 , i_3 , and i_4 (and voltages v_1 and v_2) (10pts.)



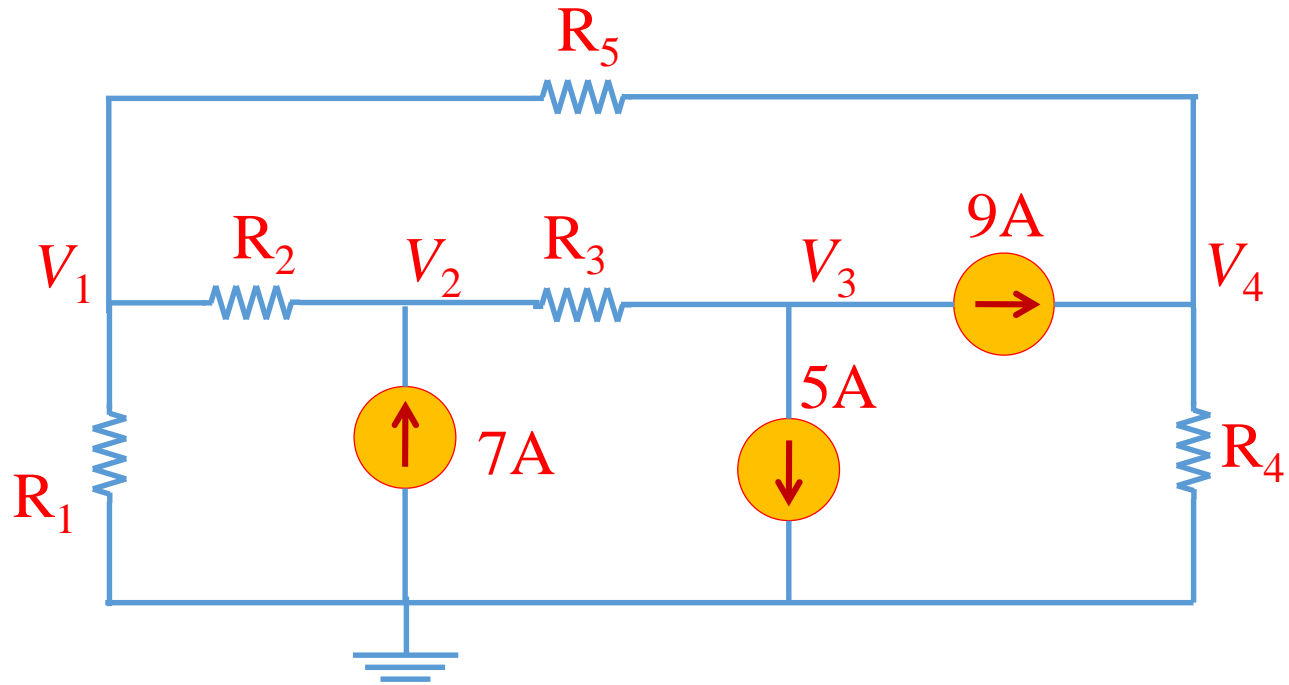
Problem 2: Use nodal analysis and find V_1 through V_4 and i_1 through i_4 (10pts.)



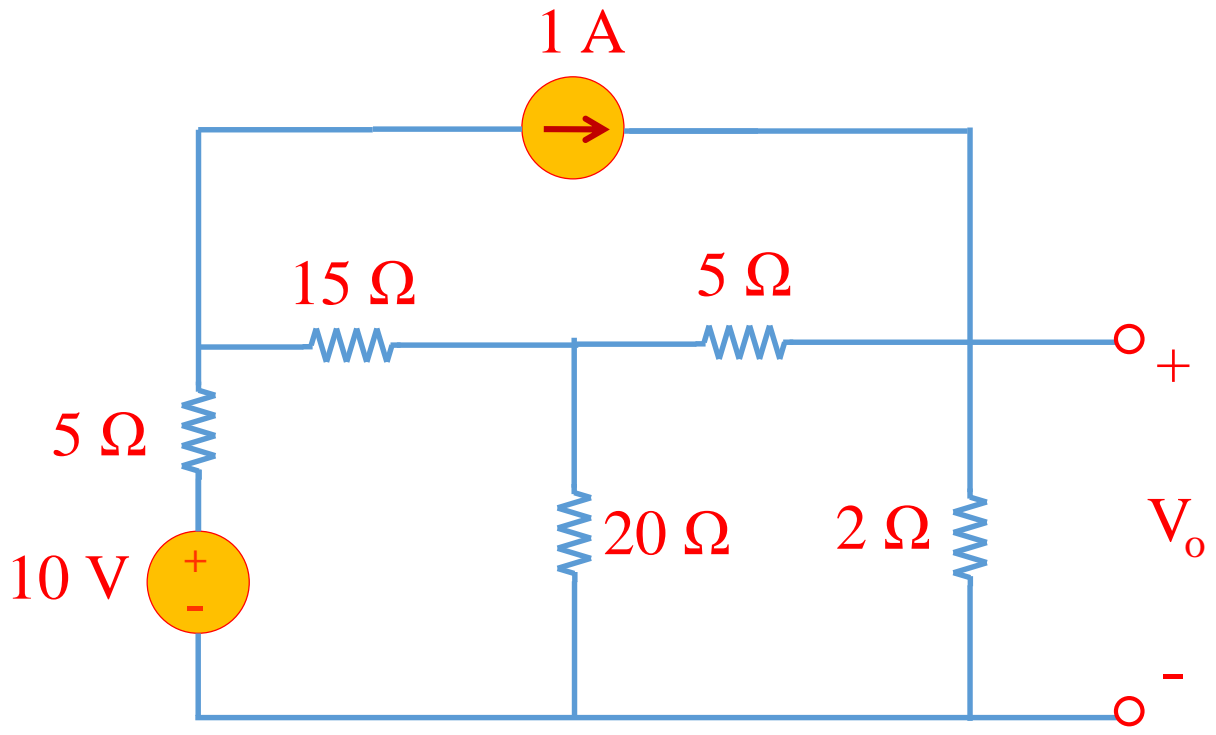
Problem 3: Use nodal analysis and find V_1 through V_3 and i_1 through i_3 (10pts.)



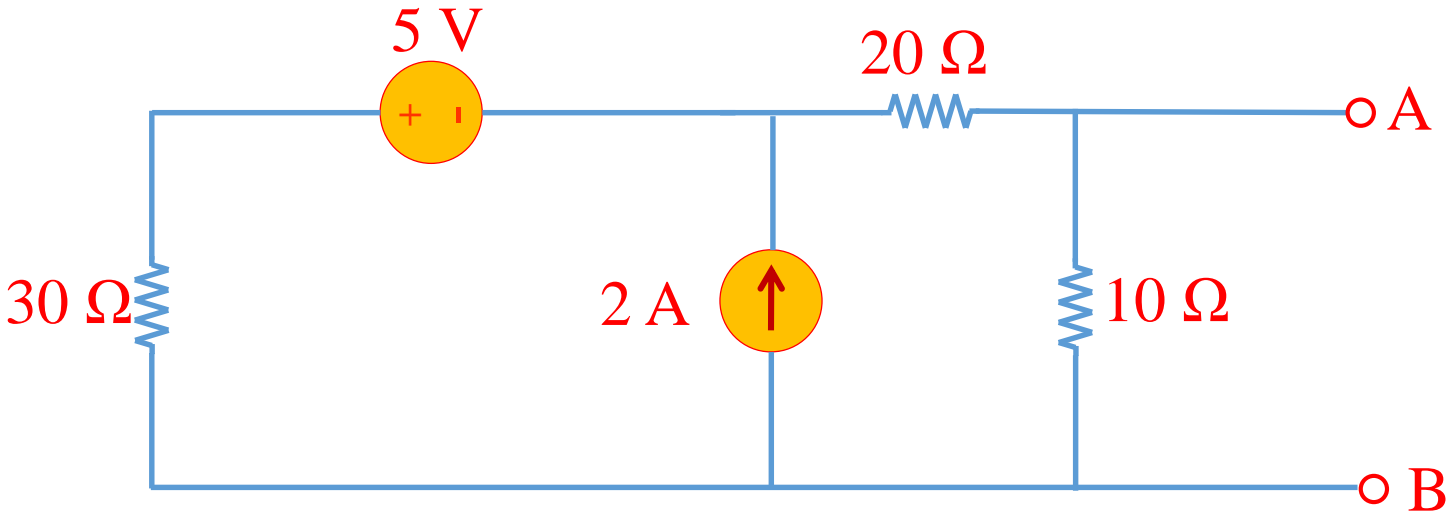
Problem 4: Write all nodal voltage equations and put them in the matrix form (you do not need to solve for voltages V_1 through V_4) (10pts.)



Problem 5: Find V_o using Thévenin theorem (10pts.)



Problem 6: Find both the Thevenin and Norton equivalent circuits at terminals AB.
(10pts.)



Problem 7: Find both the Thevenin and Norton equivalent circuits at terminals AB.
(10pts.)

