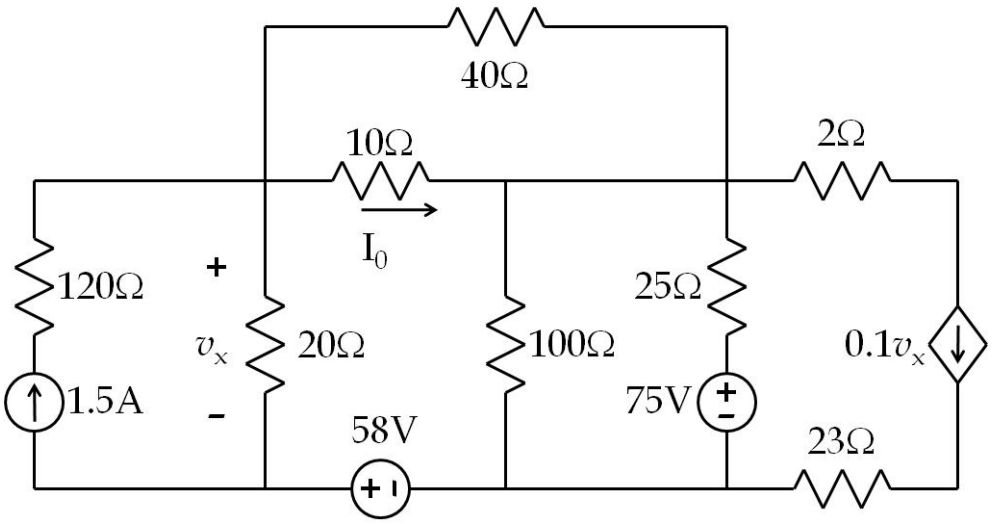
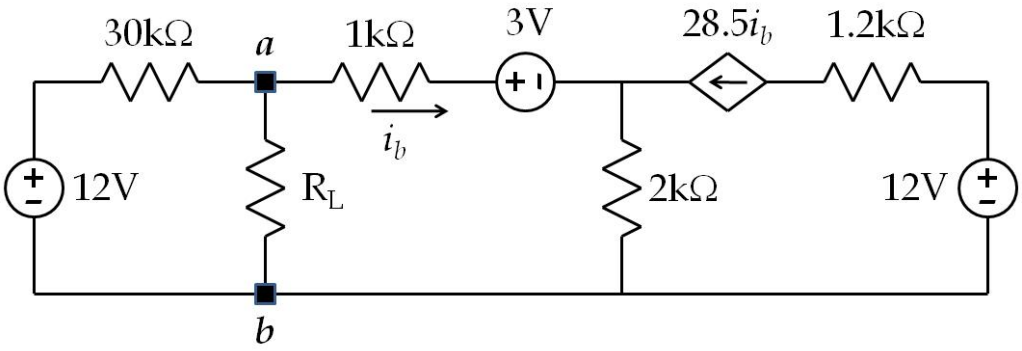
EEE 31
Problem Set 2 Part 1

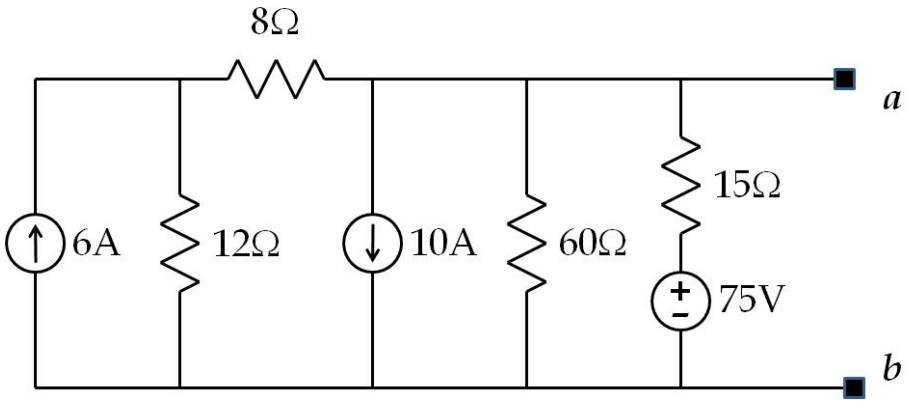
1. Using a series of source transformations, simplify the circuit to a single KVL or KCL problem and solve for v_x and I_0.



2. For the given circuit below, find the following:
   a. the Thevenin equivalent as seen by the load R_L
   b. the maximum power that can be delivered to the load
   c. the value of R_L if R_L absorbs half of the maximum power (*your answer in b*)



3. Determine the Norton equivalent across terminals ***a*** and ***b***. Note that for this problem, you are allowed to use source transformation just once on any part of the circuit.



4. Use the principle of superposition to solve for V_0.