EECE202   NETWORK ANALYSIS I   Dr. Charles J. Kim

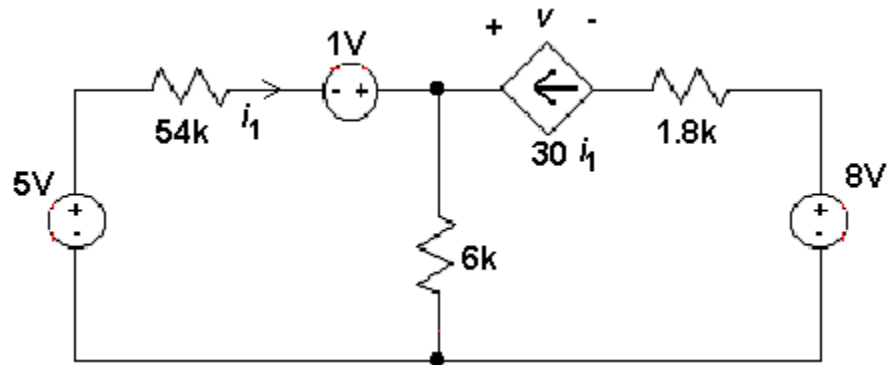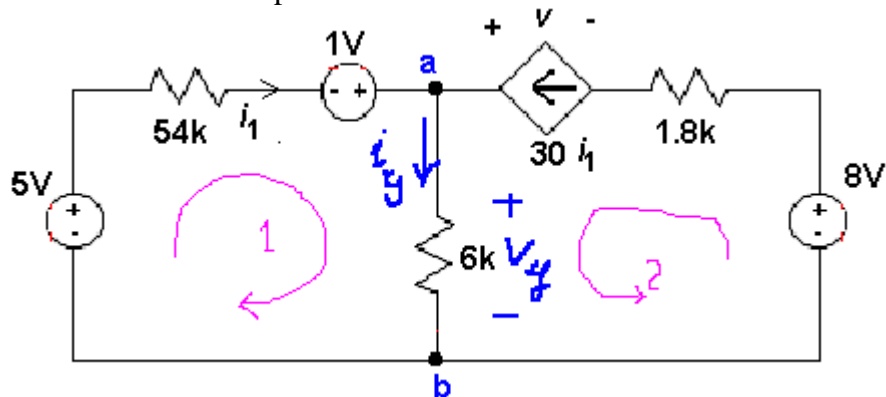**Class Note 3: Example Problem with Dependent Source**

Problem 1:
Find v and i_1 from the circuit given below

SOLUTION:
Strategy: KCL at the center node for current calculation, and KVL for the voltage.
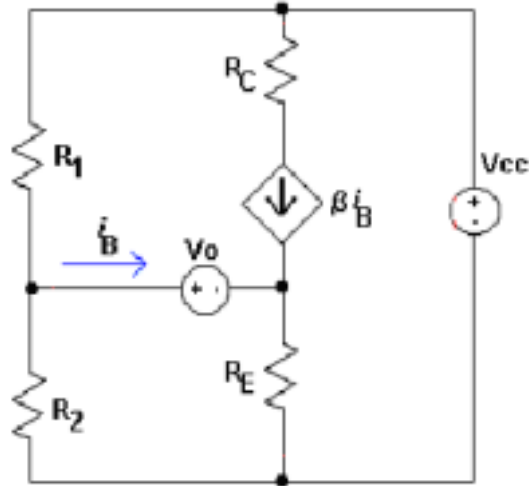
(a) node and current marks and loops

(b) Equations:

Problem 2:

In a given circuit below, all the resistances and sources are known: $V_{cc}=15[V]$, $V_o=200[mV]$, $R_1=20K$, $R_2=80K$, $R_E=100$, and $R_C=500$. $\beta=39$.

Find equation for i_B and I_{cc}.

SOLUTION

Procedure:

1. The fist thing we do is to mark nodes (a, b, c, and d) and flow indication of the currents (i_1, i_2, i_B, i_E, i_C, and i_{CC})