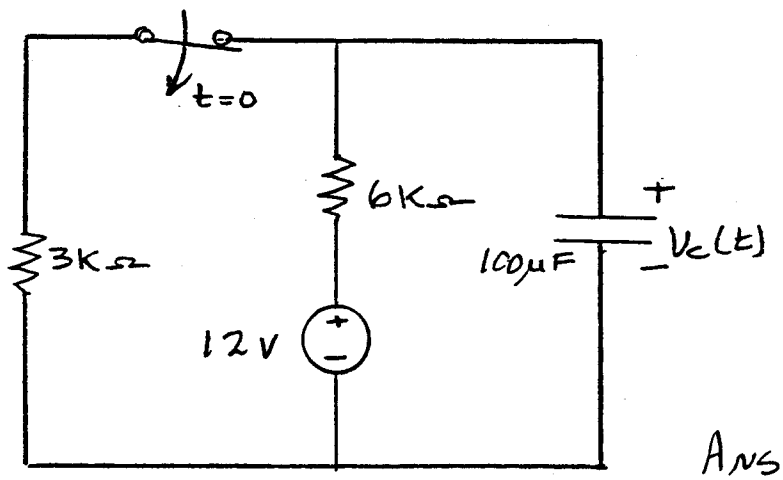
ECE 301
Fall Semester, 2002
HW Set #7

Due: October 22, 2002
wlg

Name_____
Print (last, first)

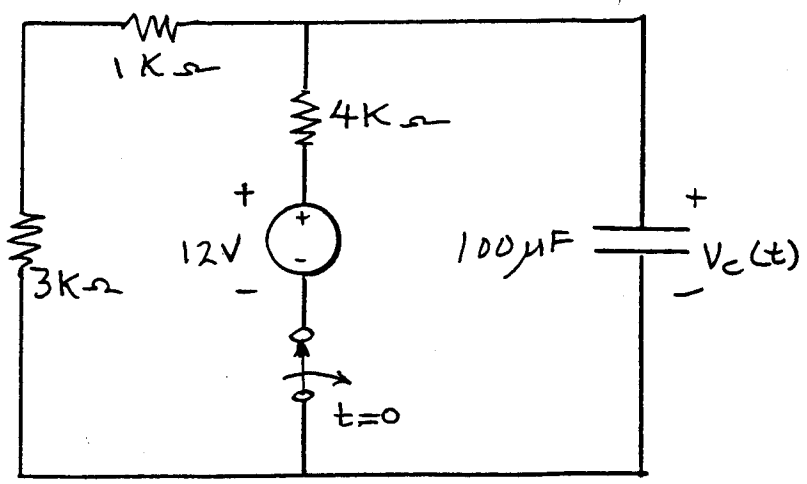
Use engineering paper. Work only on one side of the paper. Use this sheet as your cover sheet, placed on top of your work and stapled in the top left-hand corner. Number the problems at the top of the page, in the center of the sheet. **Do neat work. Underline your answers. Show how you got your equations. Be sure to show how you got your answers.**

7.1 You are given the following circuit. Write and solve the relevant differential equation for solving for $v_c(t)$ for t greater than or equal to zero.



Ans: $V_c(t) = 12 - 8e^{-\frac{t}{0.6}} V$

7.2 You are given the following circuit. As in 6.1, write and solve the relevant differential equation for solving for $v_c(t)$ for t greater than or equal to zero.



Ans: $V_c(t) = 6e^{-\frac{t}{0.4}}$