

University of California
College of Engineering
Department of Electrical Engineering
and Computer Sciences

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Problem Set 4
Due Tuesday July 26th at 6pm

EE40
Summer 2006

Reading:

Chap 6-6.8, 14 of Hambley 3rd Edition

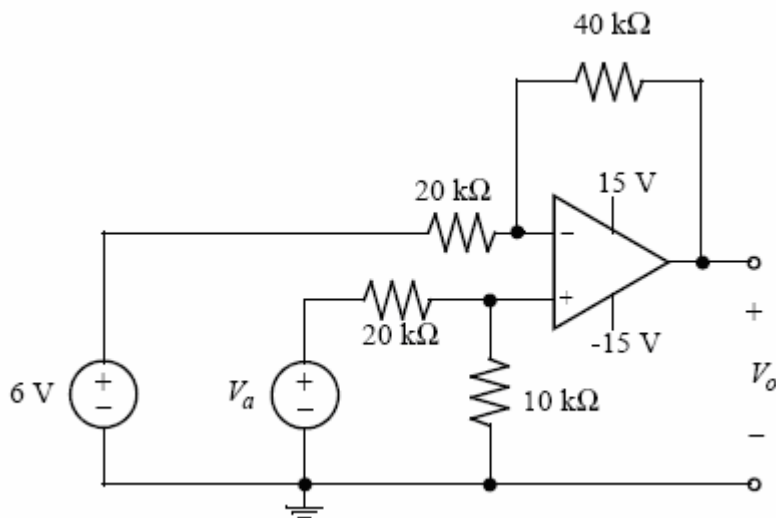
Problems:

Chap 4: 4.49, 4.35

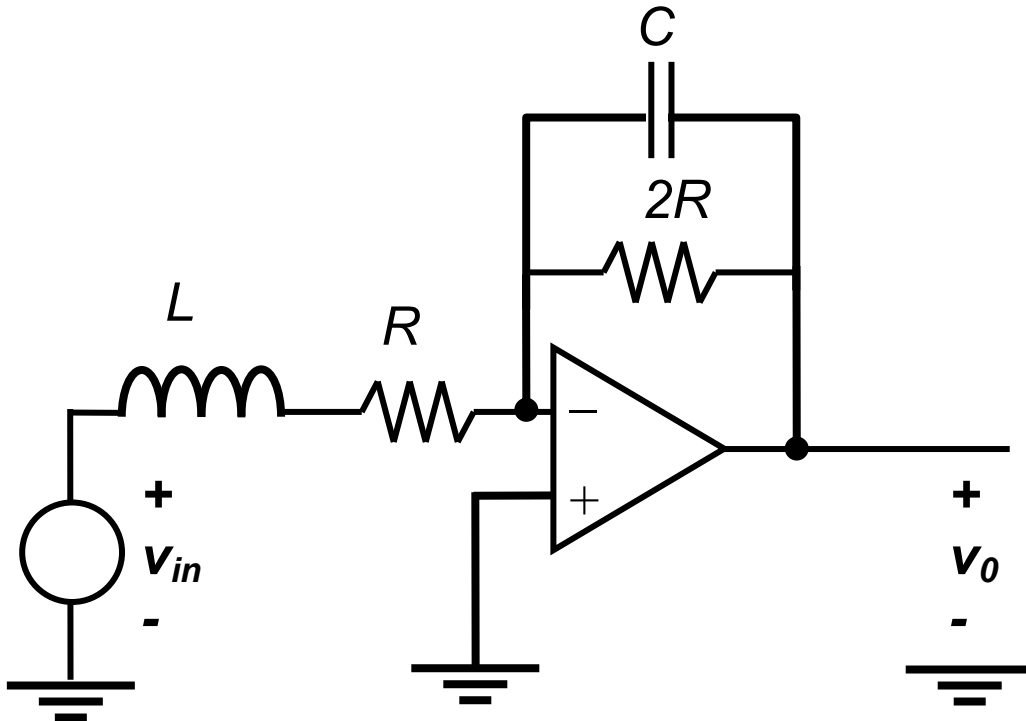
Chap 6: 6.59, 6.81

Chap 14: 14.17, 14.18, 14.21, 14.26, 14.40

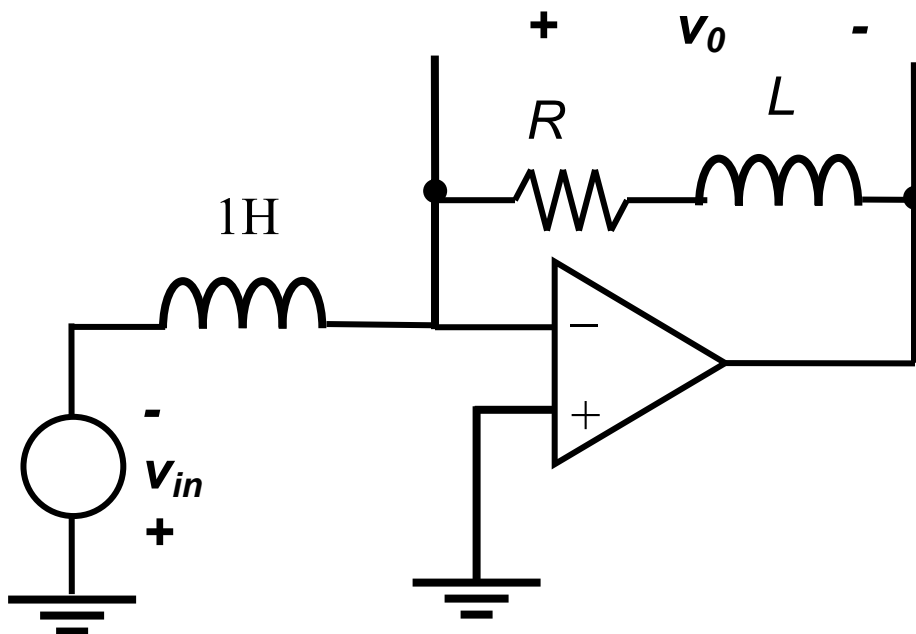
Additional Problems:



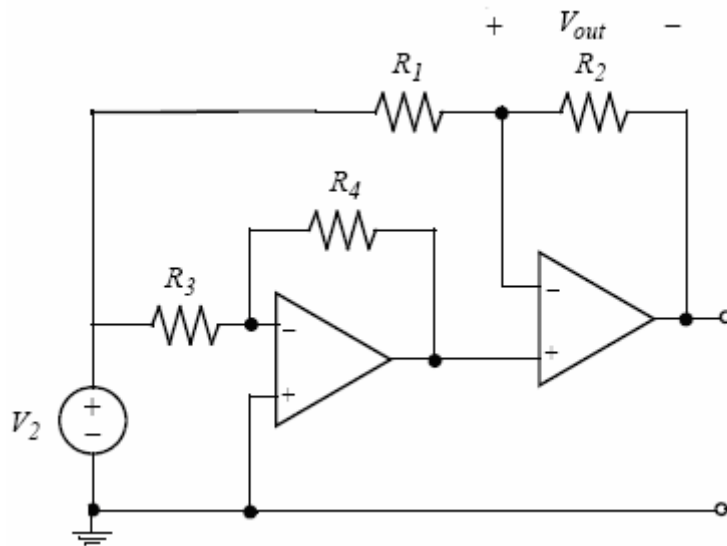
P1: Find an expression for V_o in terms of V_a . What is the transfer function from V_a to V_o ?



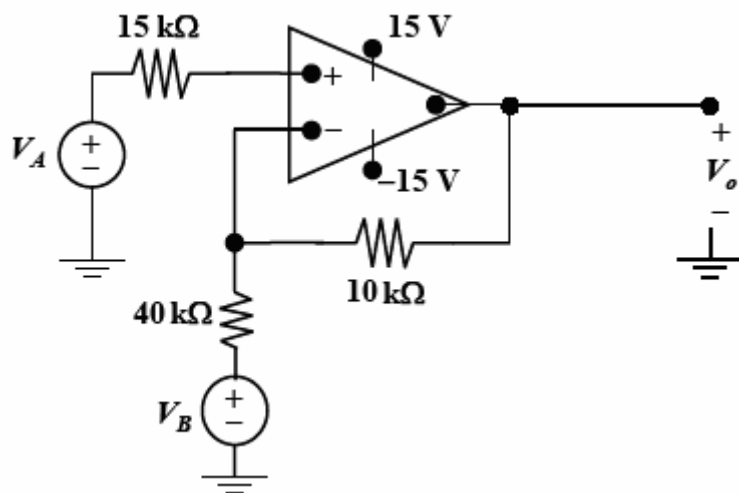
P2: Find the transfer function from V_{in} to V_o ? Sketch the Bode plot.



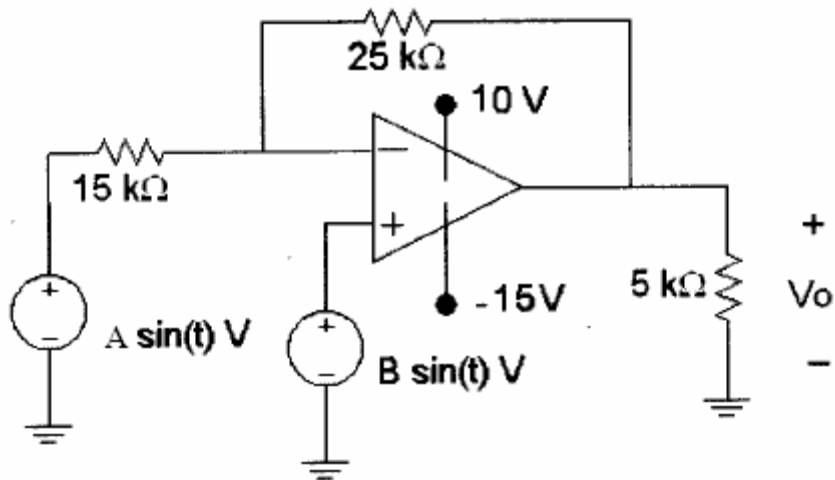
P3: Find the transfer function from V_{in} to V_o ? Sketch the Bode plot.



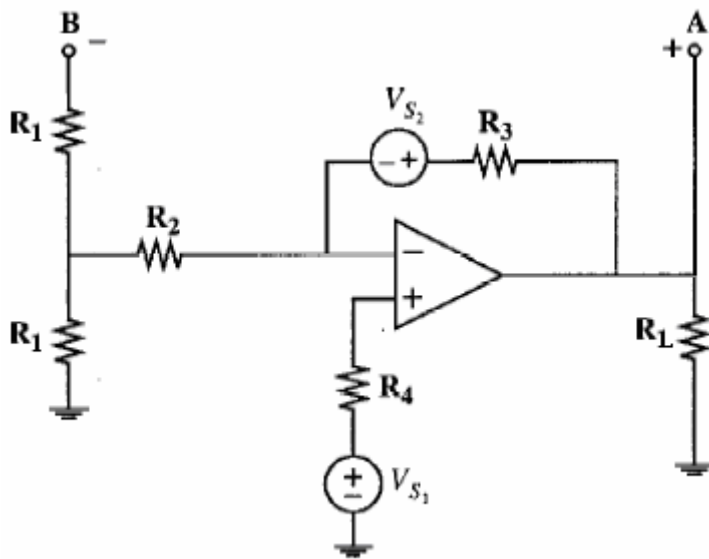
P4: Find V_o as a function of V_2 .



P5: Find V_o as a function of V_A and V_B .



P6: Find at what amplitudes of A and B V_o will saturate if A and B are independent. Find at what amplitude B V_o will saturate if $A=2B$.



P7: Find the Thevenin equivalent circuit between points A and B.