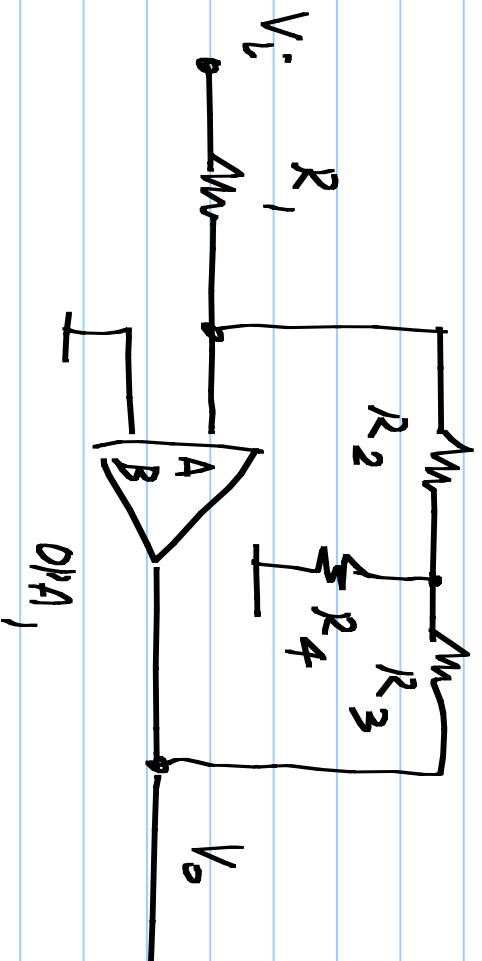


EECE 1010: Electrical and Magnetic circuits.

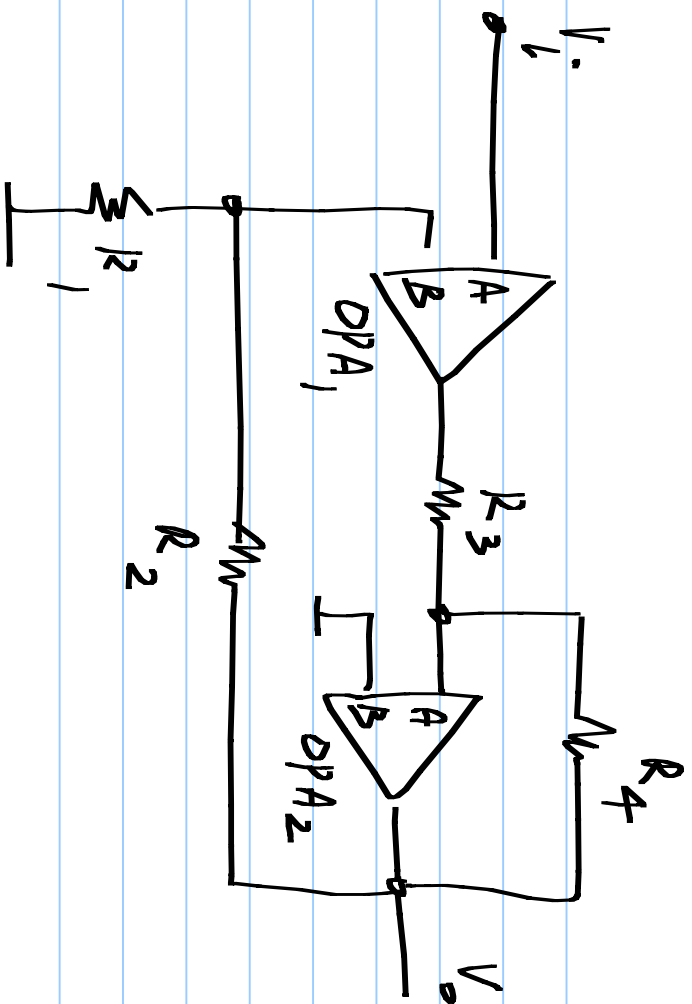
Problem set #6 (Due on 14<sup>th</sup> Mar. 2014)

P 1-4: Determine the output sign for negative feedback and calculate  $V_o/V_i$  or  $V_o/I_i$ .

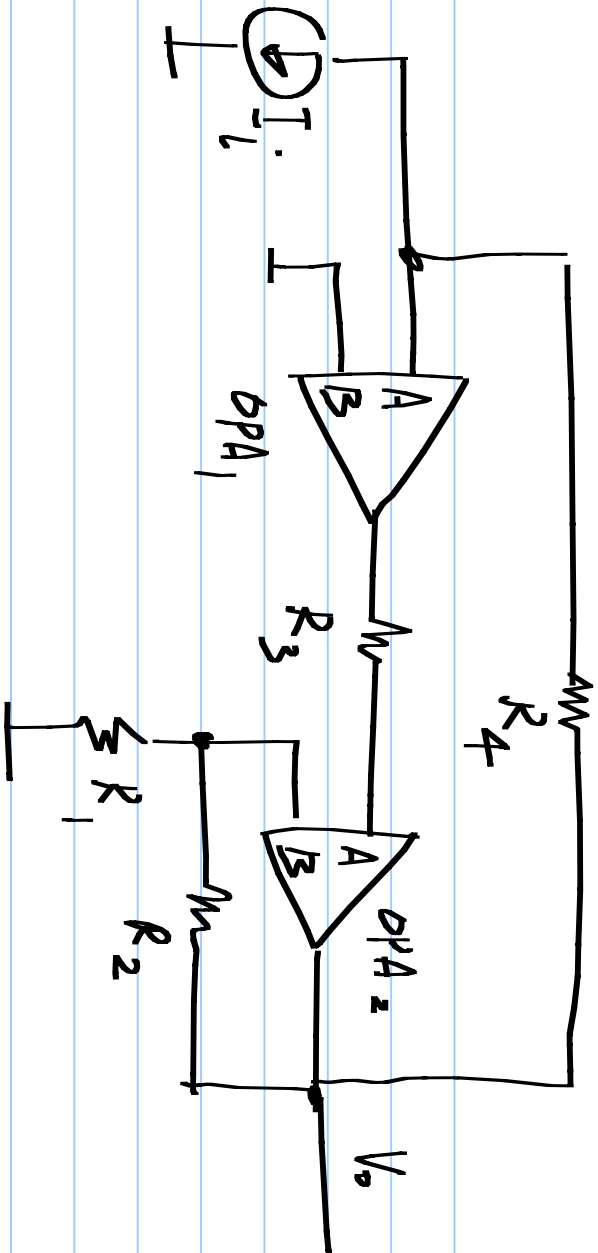
P1.



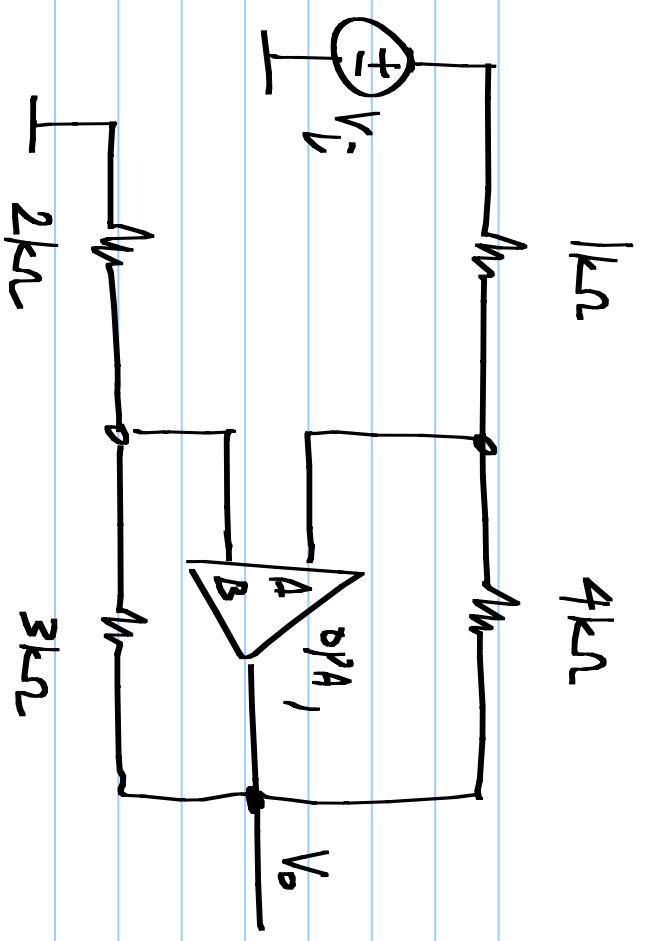
P2.



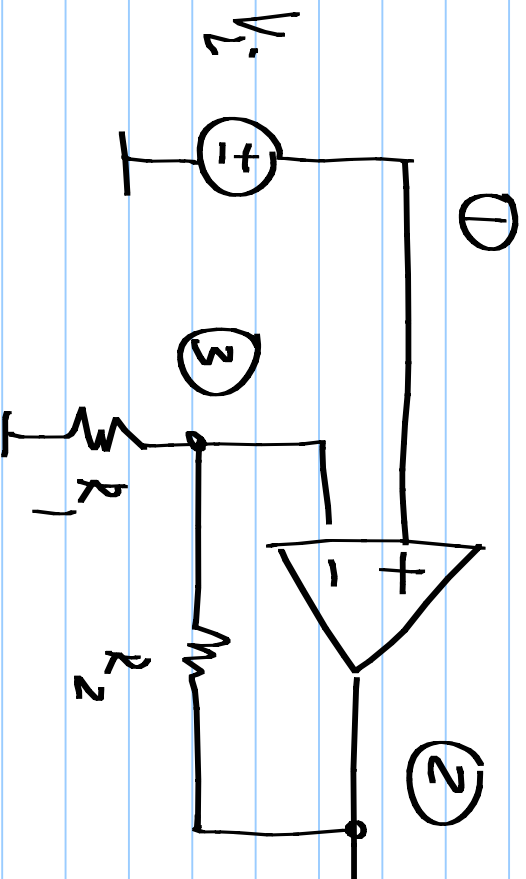
P3.

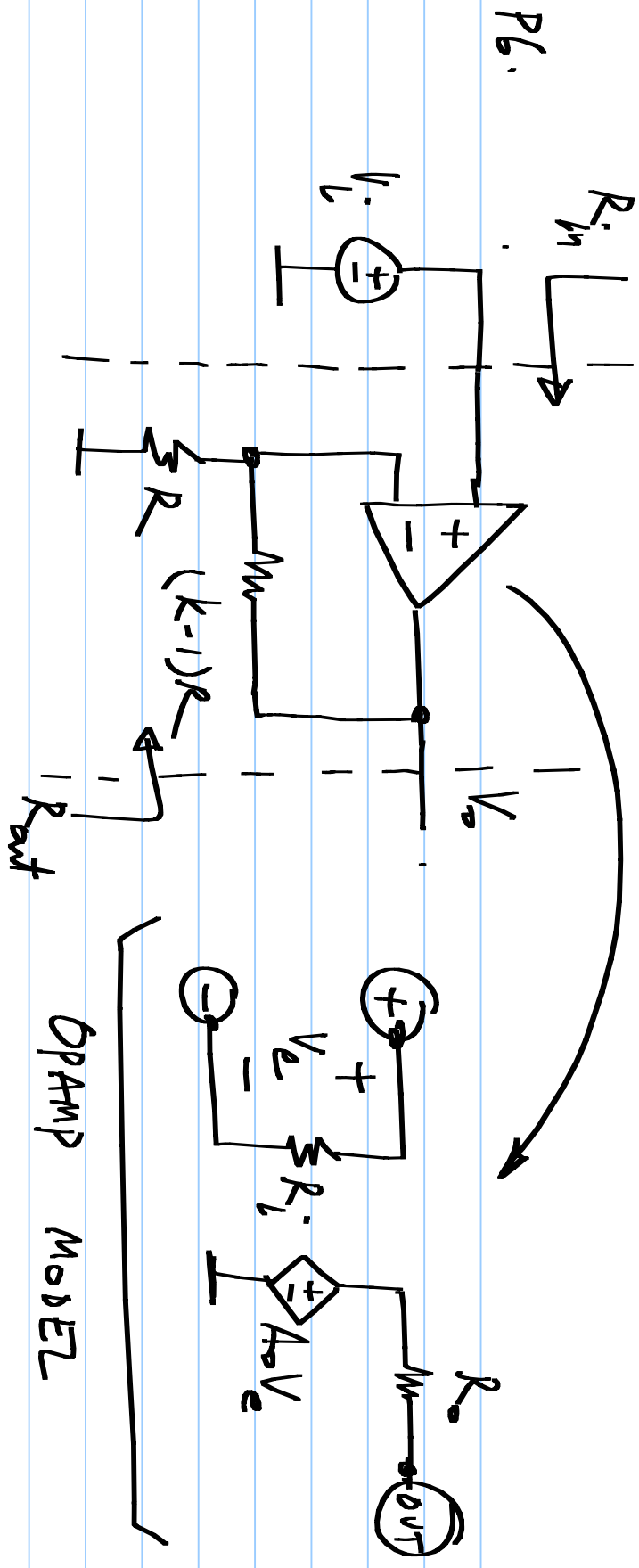


P4:



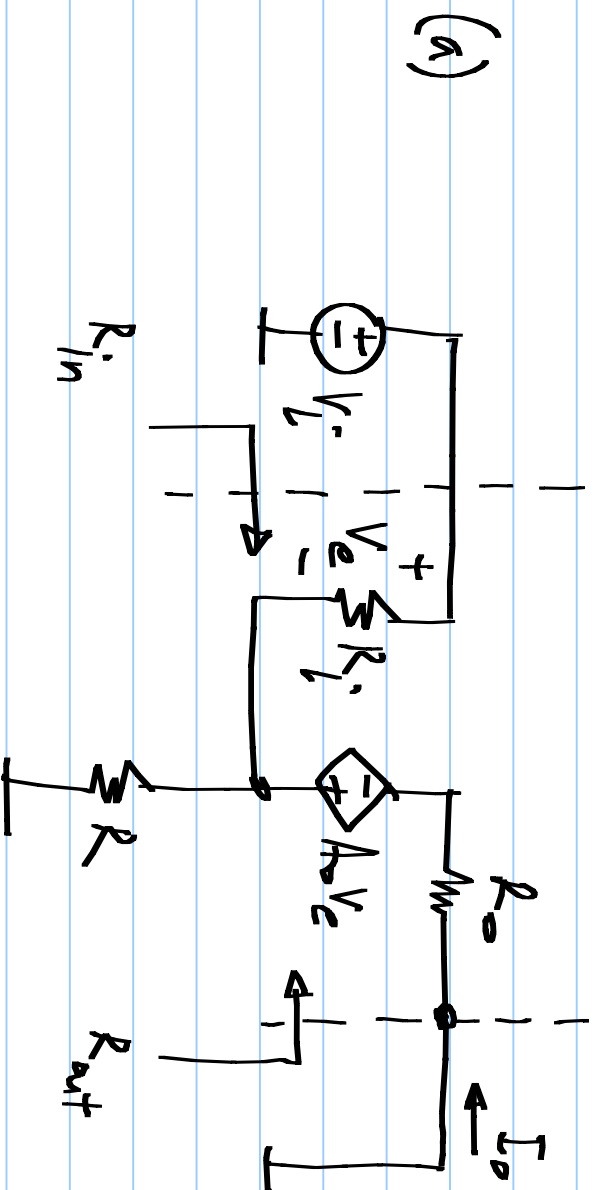
Q5. Write the modified nodal analysis equations for the following circuit-





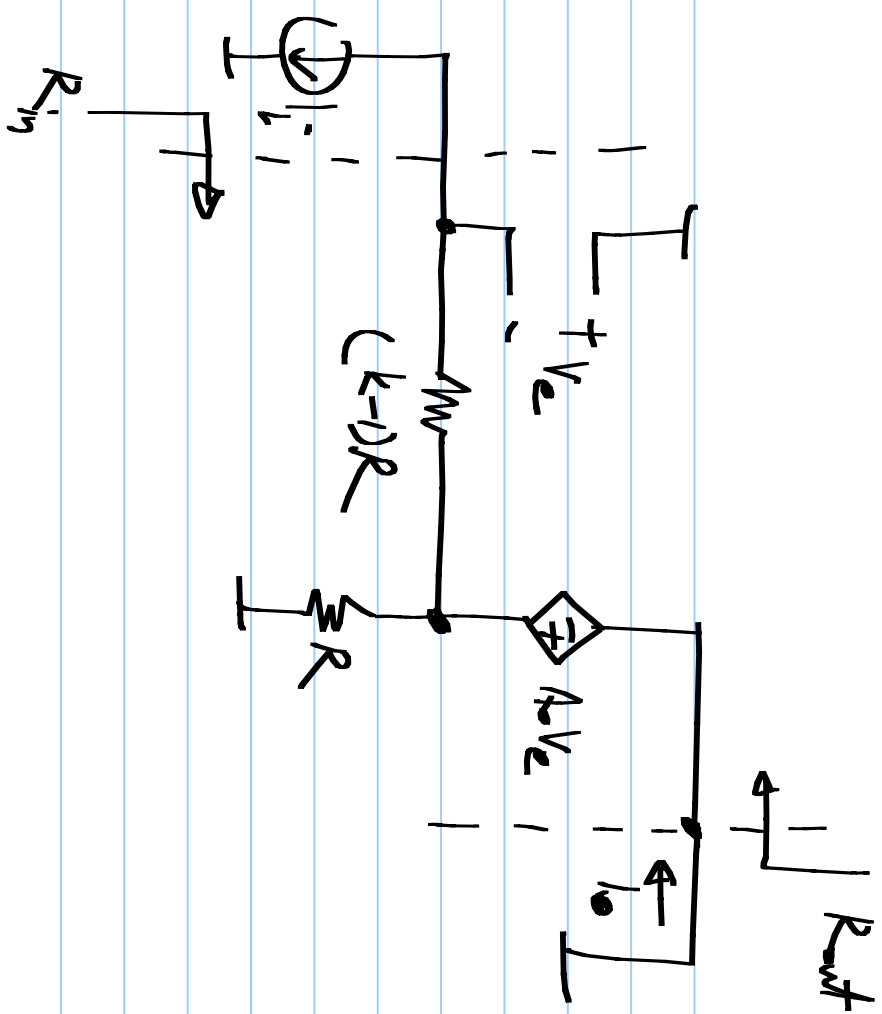
Determine  $V_o/V_i$ ,  $R_{in}$ ,  $R_{out}$  with the given opamp model.

P7. Determine the output/input ratio, and the input and output resistances in the following circuits.  
 What happens as  $A_v \rightarrow \infty$

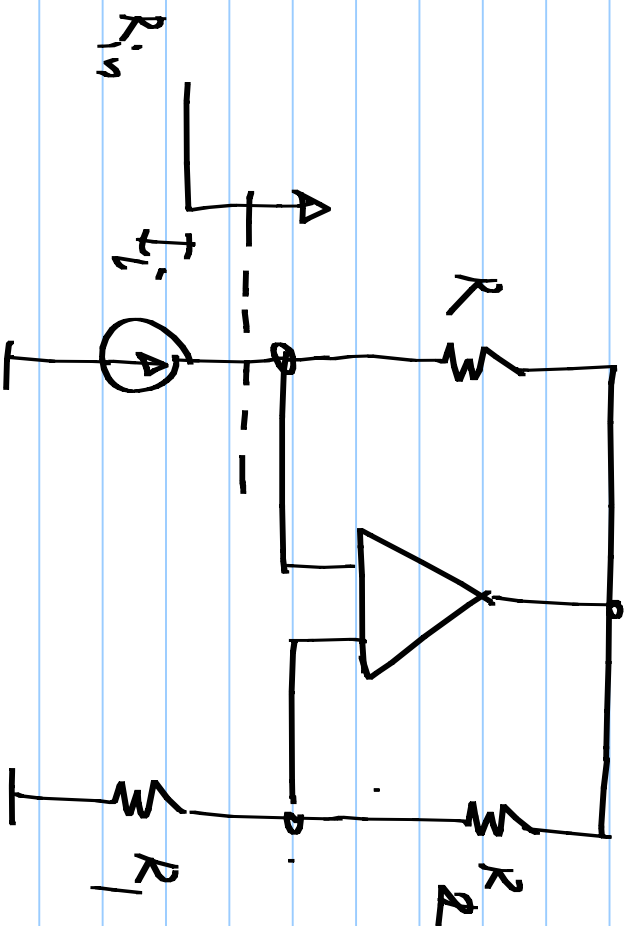




P7 (b)



P8.



Determine the  
opamp sign for  
negative feedback.

Determine  $R_{in}$ , the  
resistance seen by  
the current source.