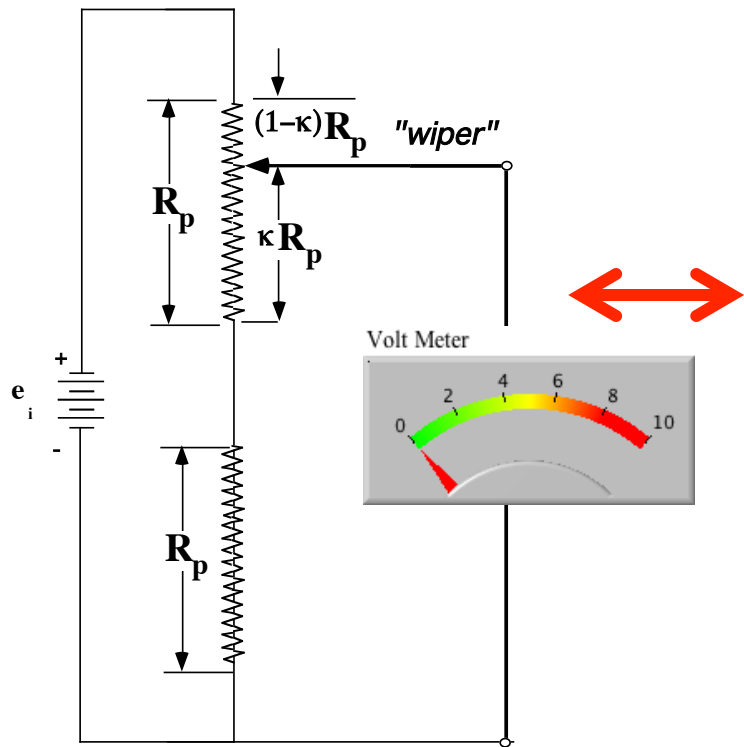


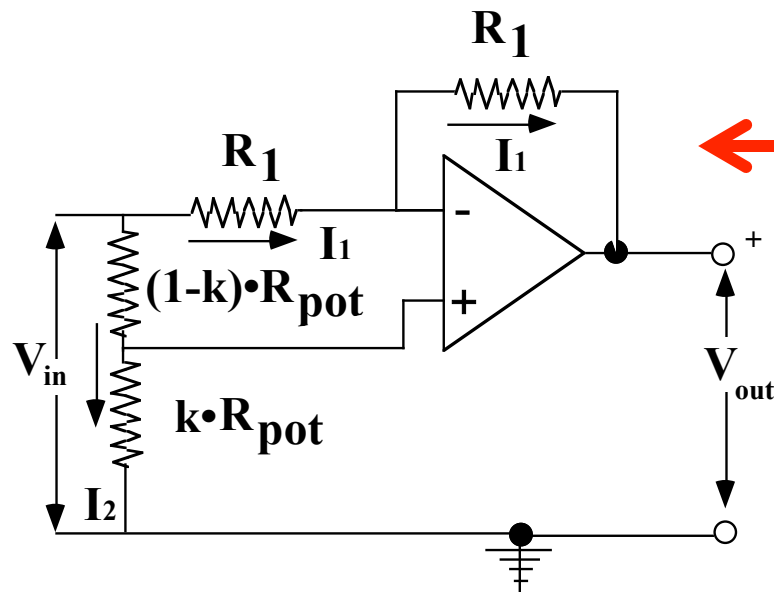
# Homework Assignment 7:

**Beckwith Chapter 7.7, 7.27, 7.31**



### (1) Problem 7.7 B.M.L.

- Find Meter Voltage as a function of input voltage, and potentiometer position  $k$
- Finite Meter resistance =  $R_L$
- Calculate Voltage across meter when  $R_L$  is infinite

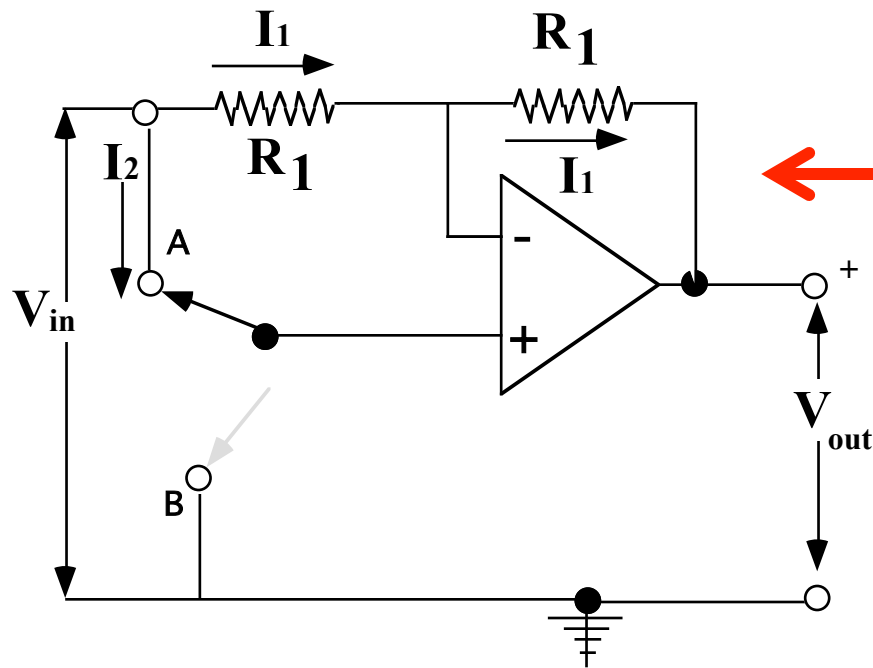


### (2) Prob. 7.27

Circuit uses a potentiometer to achieve a variable gain. Find  $V_{out}$  in terms of  $V_{in}$

Hint: First Find Voltage at “+” Op terminal in terms of  $V_{in}$  and “ $k$ ”

### (3) Prob. 7-31



*Calculate the output of the circuit  
when the switch is in position A  
and Position B*