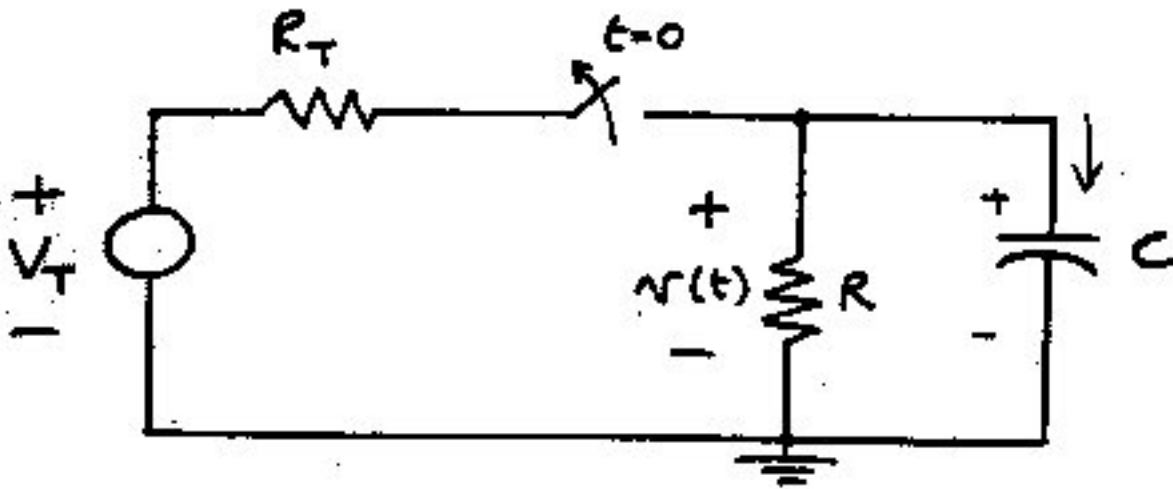


**EE42 Fall 1992**  
**Midterm #2**  
**Professor Liam Murphy**

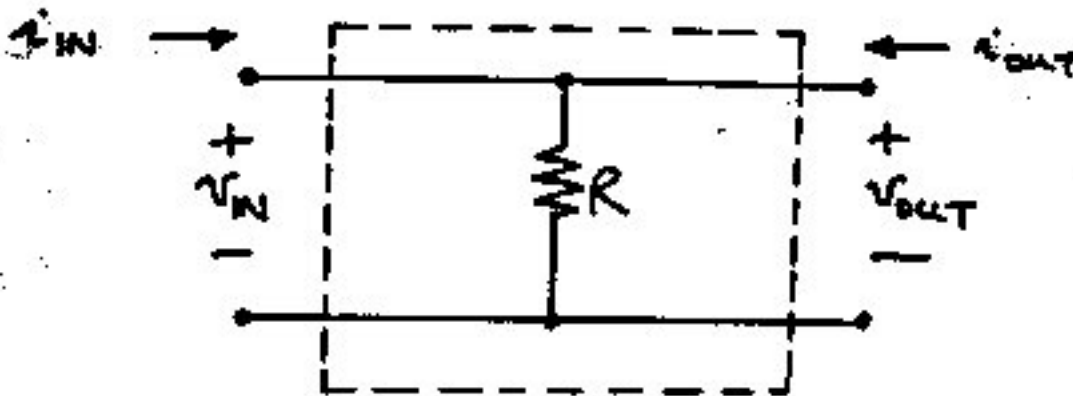
**Problem #2 [20 points]**

In the circuit below, the switch has been closed for a very long time. At time  $t = 0$  it is opened. Plot  $v(t)$  for  $t > 0$ . Indicate clearly on your plot the time constant  $\tau$ , and the value of  $v(t)$  at  $t = 0+$  and as  $t$  goes infinity.



**Problem #4 [20 points]**

An amplifier has the following simple structure :



Find  $R'_i$ ,  $R'_v$ , and  $A'$  for this amplifier.

**Posted by HKN (Electrical Engineering and Computer Science Honor Society)  
University of California at Berkeley**

**If you have any questions about these online exams  
please contact <mailto:examfile@hkn.eecs.berkeley.edu>**