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 $\tau_0$, 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.