[**Important**: Please try your best to write your derivations clearly and briefly explain the steps. This can help you gain partial credit if you make calculation mistakes.]

Problem 3 [35 pts]

In the circuit in Fig. 2, the switch has been closed for all $t < 0$. At $t = 0$, the switch is opened (and remains open for $t > 0$). Find $v_o(t)$ for $t > 0$.

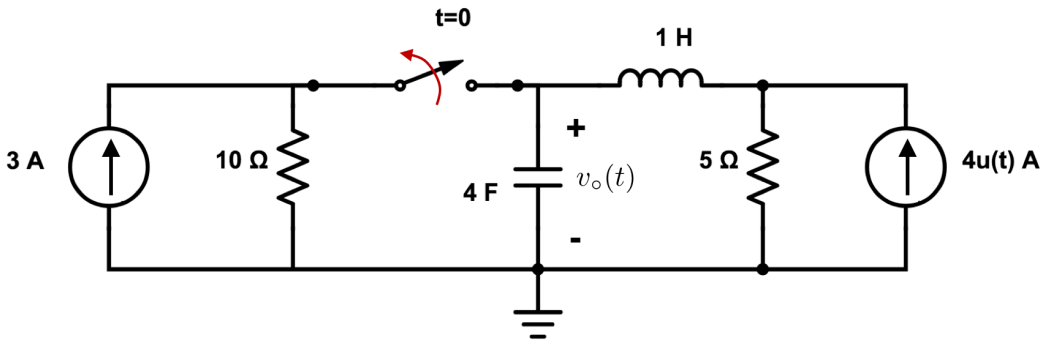

Figure 2