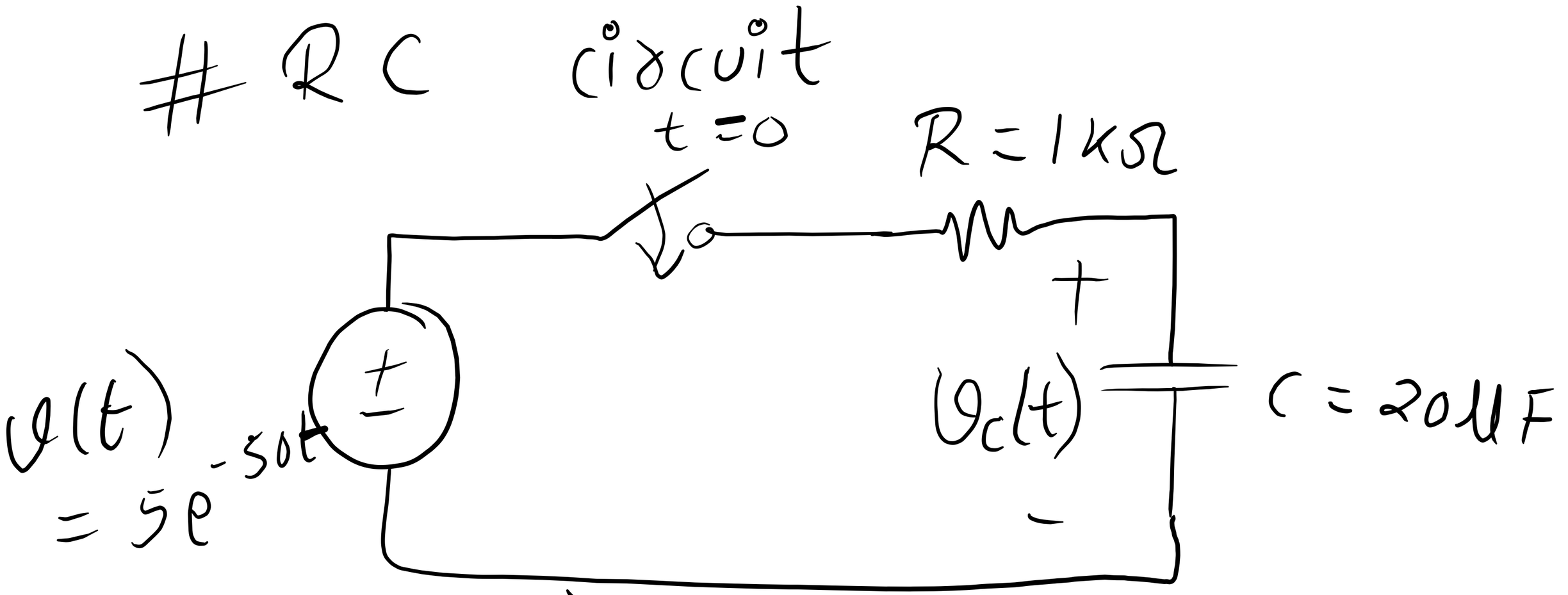
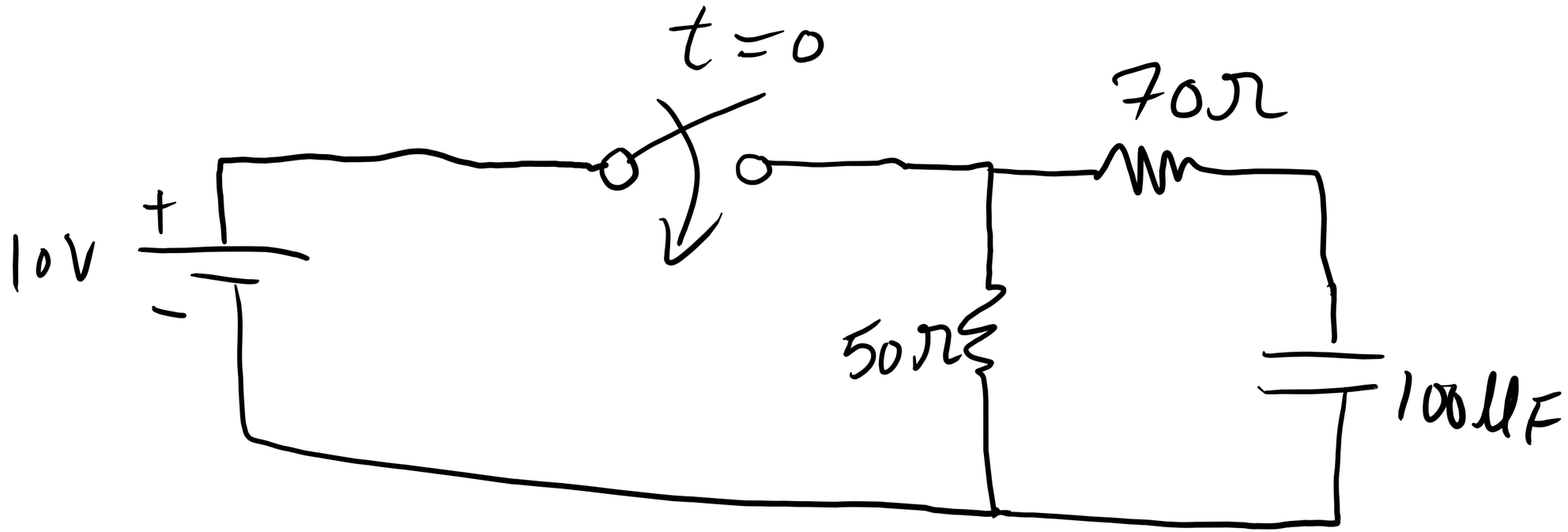
RC circuit

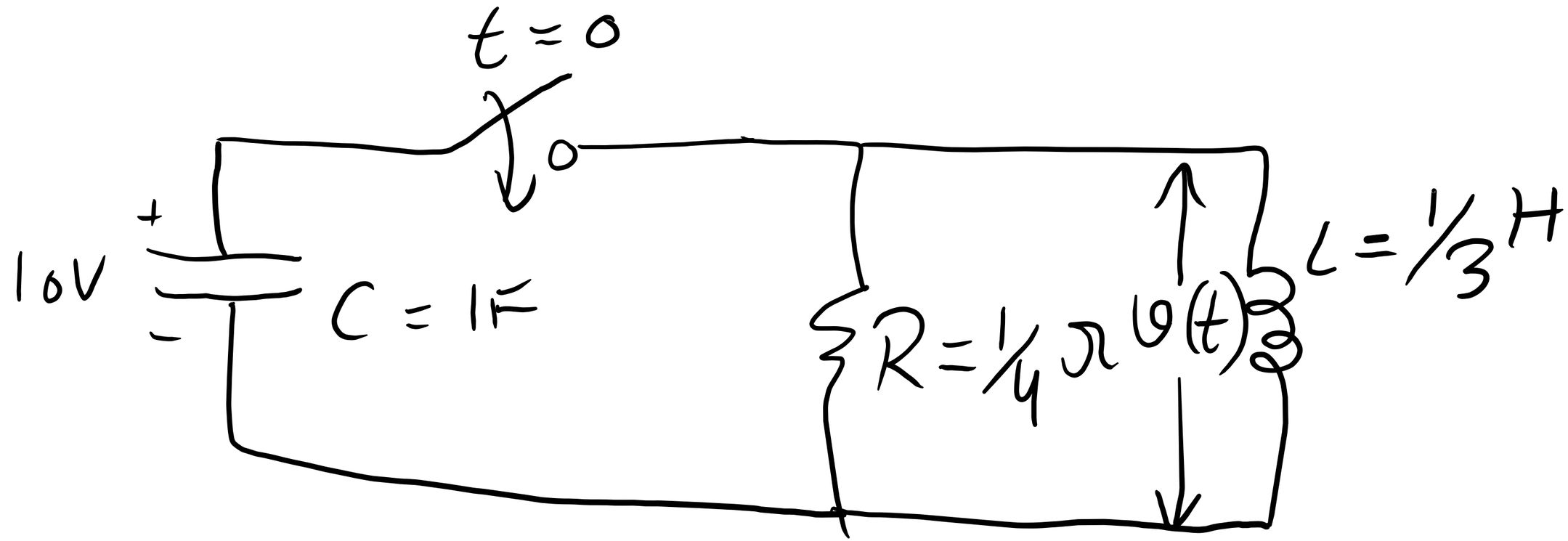


Find $i(t)$ and $v_c(t)$

In the circuit shown in figure below, if the switch is closed at time t = 0, find the time when the current from the battery reaches 250mA. Use classical method.



In the circuit shown, capaitor C has an initial voltage Vc = 10 volts and at the same instant, current through inductor L is zero. The switch is closed at time t = 0. Find out the expression for the voltage v(t) across the inductor L using classical method.



In the circuit shown in figure below, a switch S is in the position 1, for a long tiem and moved to position 2 at time t = 0. Find the voltage across capacitor for t > 0.