1. After being closed for a long time, the switch becomes open at \( t=0 \). Find \( R_1 \) and \( R_2 \) that give the following plot for \( V_c(t) \):

![Circuit Diagram](image)

After being closed for a long time, the switch becomes open at \( t=0 \). Find \( R_1 \) and \( R_2 \) that give the following plot for \( V_c(t) \):

![Plot](image)

2. After being open for a long time, the switch becomes closed at \( t=0 \). Find \( i(t) \) for \( t > 0 \).
3. After the switch has been closed for a long time, it opens at $t=0$. Find $V_c(t)$ for $t > 0$.

4. After the switch has been closed for a long time, it opens at $t=0$. Find the output voltage $v_o(t)$ for $t > 0$. 