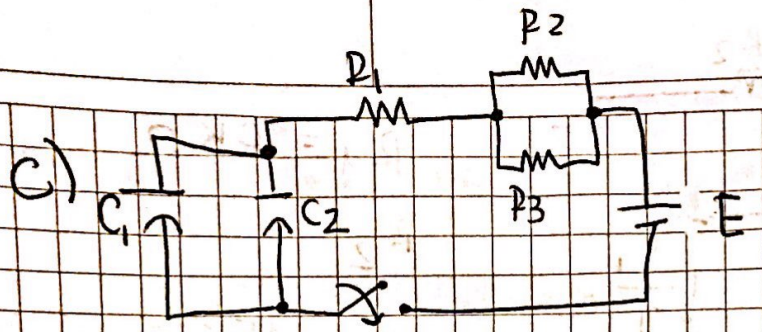
$E = 45V$

c)



$C_1 = 2,2\,\mu F$

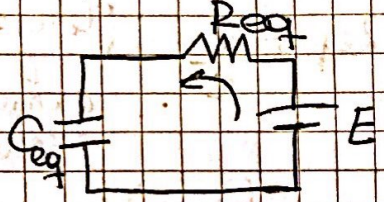
$C_2 = 4,7\,\mu F$

$R_1 = 5,6\,K\Omega$

$R_2 = 47\,K\Omega$

$R_3 = 39K\Omega$

Simplificando el circuito:



- $Req = R_1 + \frac{R_2 R_3}{R_2 + R_3} = 26,9\,K\Omega$
- $Ceq = C_1 + C_2 = 6,9\,\mu F$
- $E = 45V$

Entonces: $E = \frac{dQ}{dt} \cdot Req + \frac{Q}{Ceq} \Rightarrow Q = CE\left[1 - e^{(-t/RC)}\right]$

Además

- $V_{Ceq} = V_{C_1} = V_{C_2} = \frac{Q}{C}$, porque $V_{C_1} = V_{C_2} = 45V\left(1 - e^{-t/26,9K\Omega \cdot 6,9}\right.$
- $I_{C_1} = \frac{dQ_1}{dt} = C_1 \cdot \frac{dV_a}{dt} = C_1 \cdot \frac{E}{Req\,Ceq} \cdot e^{-t/Req\,Ceq}$
- $I_{C_2} = \frac{dQ_2}{dt} = C_2 \frac{dV_{C_2}}{dt} = C_2 \frac{E}{Req\,Ceq} \cdot e^{-t/Req\,Ceq}$