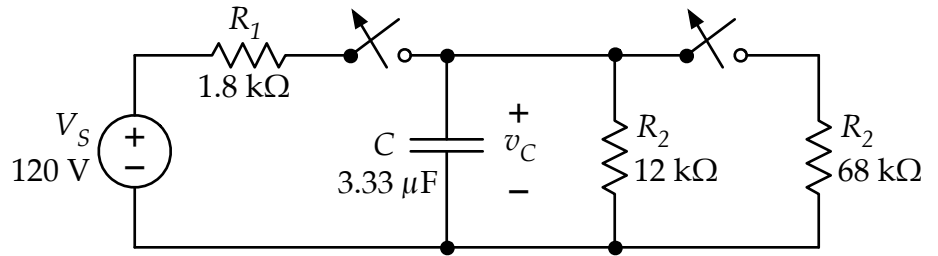The two switches the circuit shown have been closed for a long time. At $t = 0$, the both open simultaneously.

R_1
1.8 kΩ

V_S
120 V

C
3.33 μF

$+$
v_C
$-$

R_2
12 kΩ

R_2
68 kΩ

a) What is $v_c(t)$ for t > 0?

b) How long does it take for 75% of the energy that was initially stored in the capacitor to dissipate?

$v_c(t) =$ _____

$t_{0.75} =$ _____