

04/02/23 10:11:20 22

1.8) $R_1 = 16 \Omega$ $R_3 = 20 \Omega$

$i(0) = 10 \text{ mA}$

$i(t) = 0 \quad t \geq 0$

$i_{sc} = \frac{R_1}{R_1 + 4} 36 \text{ mA}$

$R_t = \frac{R_1 R_3 + 4 R_3}{R_1 + 4 + R_3}$

$= \frac{16 \Omega}{16 \Omega + 4 \Omega} 36 \text{ mA}$

$= \frac{(16 \Omega)(20 \Omega) + (4)(20 \Omega)}{16 \Omega + 4 + 20 \Omega}$

$i_{sc} = 20.8 \text{ mA}$

$= \frac{320 \Omega + 80 \Omega}{40 \Omega}$

$R_t = \frac{400}{40} = 10 \Omega$

$\tau = \frac{L}{R_t} = \frac{2 \text{ H}}{10 \Omega} = 0.2 \text{ s}$

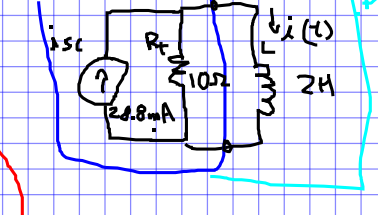
$\frac{1}{\tau} = 5$

$i(t) = i(\infty) + [i(0) - i(\infty)] e^{-\frac{t}{\tau}} \text{ A}$

$i(t) = i_{sc} + [i(0) - i_{sc}] e^{-\frac{t}{\tau}} \text{ A}$

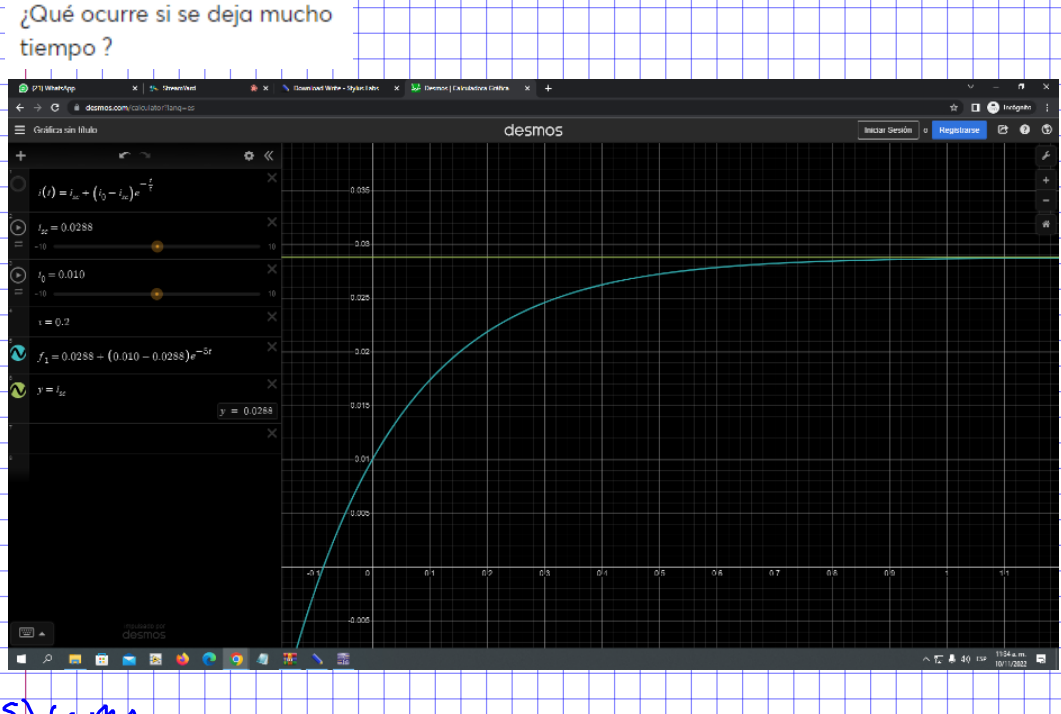
$= 20.8 \text{ mA} + [10 - 20.8] e^{-5t} \text{ mA}$

$i(t) = 20.8 - 10.8 e^{-5t} \text{ mA}$

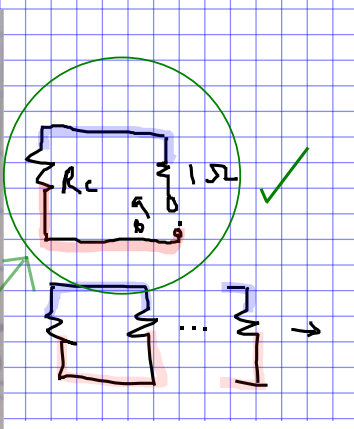
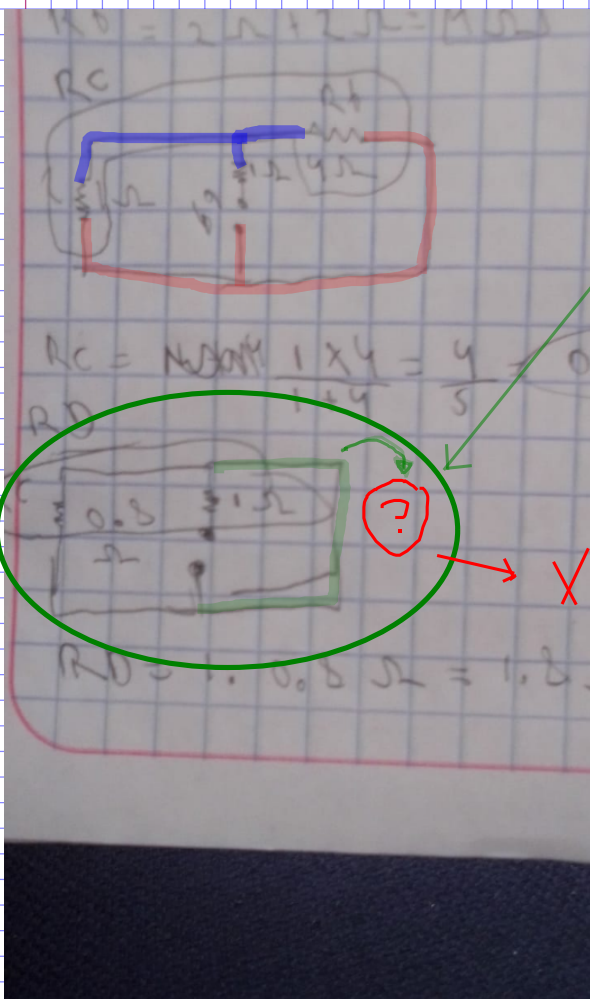
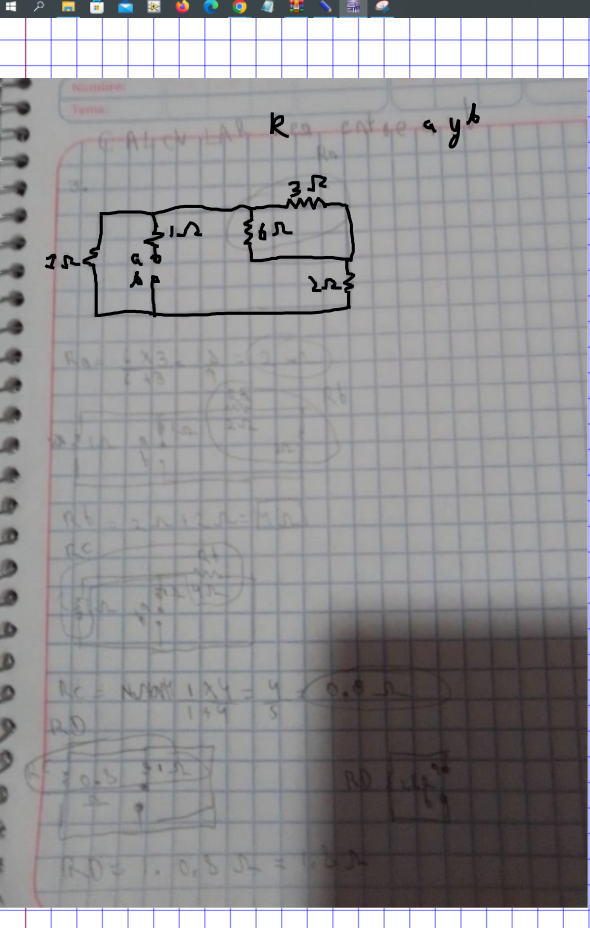
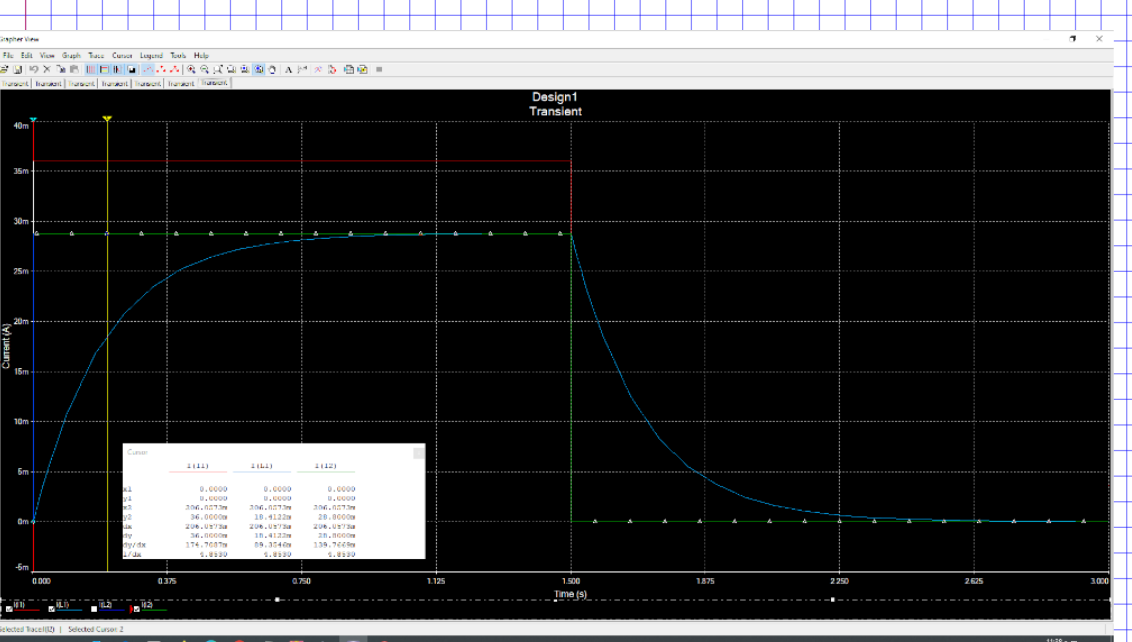
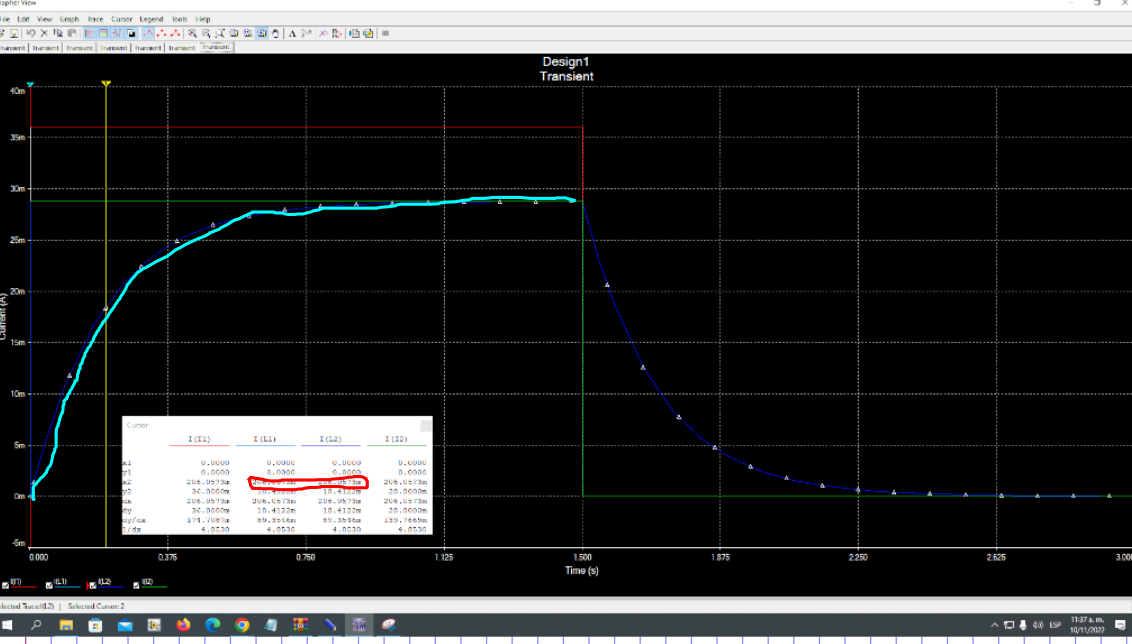


Dada:

¿Qué ocurre si se deja mucho tiempo?



S) Comp



Mucho ojo n.n!

$R_0 = 2 \Omega + 2 \Omega = 4 \Omega$

$R_C = 100 \text{ m}\Omega \times 4 = 400 \text{ m}\Omega$

$R_D = 100 \text{ m}\Omega \times 4 = 400 \text{ m}\Omega$

$R_0 = 100 \text{ m}\Omega \times 4 = 400 \text{ m}\Omega$

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-1) Int.

0

0)

1)

2)

3)

4)

5)

6)

7)

8)

9)