

Usando que

$$\lambda = \frac{e}{R} = \frac{50}{172 \times 10^6} = 4,11 \times 10^{-5} \text{ A}$$

$$c) Ri + \frac{q}{C} = 0$$

$$R \frac{dq}{dt} + \frac{q}{C} = 0 \Rightarrow \frac{RC}{dt} = -\frac{q}{dq}$$

$$dq \cdot RC = -q dt \Rightarrow -\frac{dq}{q} = \frac{dt}{RC}$$

$$\int \frac{dq}{q} = -\frac{1}{RC} \int dt$$

Q

NO DATE

$$-\ln q = \frac{t}{RC}$$

$$\Rightarrow \ln q = -\frac{t}{RC}$$

$$q = e^{-\frac{t}{RC}}$$

$$q(t) = e^{-\frac{t}{RC}}$$