IT Schempfer

$10^{-3} = m^{(milli)} = \frac{1}{10^3}$

$10^{-6} = \mu$ (micro)

$10^{-9} = n$ (nano)

$10^{-12} = p$ (picco)

$10^{-15} = f$

470 mF

$470 \cdot 10^{-3}$ F

$\frac{470}{1000} = 0{,}470$ F

0,033 µF = F

$0{,}033 \cdot 10^{-6}$ F = 33 nF

0,000000033 = $33 \cdot 10^{-9}$

2,2 nF = 2200 pF

$\tau = R \cdot C = \underline{100}\ k\Omega \cdot \underline{10}\ \mu F$

$1000 \cdot 10^3 \cdot 10^{-6}$

$10^3 \cdot 10^3 \cdot 10^{-6}$

$= 10^0 = 1$ s

$$U_{C1\tau} = 100\,V \cdot \left(1 - e^{-\frac{1s}{1s}}\right)$$

$$\left(1 - e^{-1}\right)$$

* Shift + e^x (Taschenrechner)

$$100\,V \cdot (1 - 0{,}3678)$$

$$100\,V \cdot 0{,}6322$$

$$U_{C1\tau} = \underline{63{,}22\,V}$$

$$U_{C3\tau} = 100\,V \cdot \left(1 - e^{-\frac{3s}{1s}}\right)$$

$$= 100\,V \cdot \left(1 - e^{-3}\right)$$

$$\left(1 - 0{,}0498\right)$$

$$= 100V \cdot 0{,}9502$$

$$U_{C3\tau} = 95{,}02\,V$$