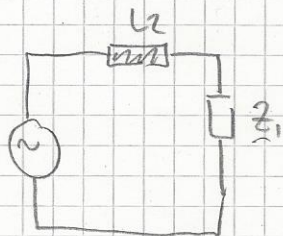


AS.)
a)

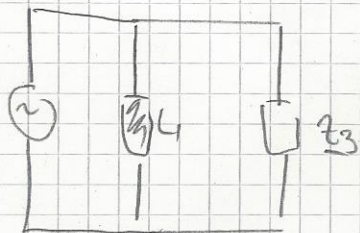
$$Z_1 = \frac{R}{j\omega C} = \frac{R}{1 + j\omega RC}$$

$$\underline{\hat{u}}_C = \underline{\hat{u}} \frac{Z_1}{j\omega L_2 + Z_1} = \underline{\hat{u}} \frac{R}{1 + j\omega RC} = \underline{\hat{u}} \frac{R}{(1 + j\omega RC)(j\omega L_2) + R}$$

$$= \underline{\hat{u}} \frac{R}{j\omega L_2 - \omega^2 R L_2 C + R}$$

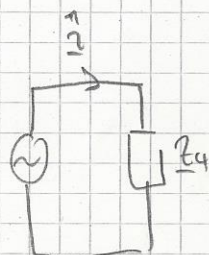
b) $\underline{\hat{u}} = 3V e^{j0^\circ}$

$$\underline{\hat{u}}_C = 2,28V \cdot e^{-j8,75^\circ}$$



$$\begin{aligned} Z_3 &= j\omega L_2 + Z_1 \\ &= j\omega L_2 + \frac{R}{1 + j\omega RC} \\ &= \frac{j\omega L_2(1 + j\omega RC) + R}{1 + j\omega RC} \\ &= \frac{j\omega L_2 + j\omega L_2 j\omega RC + R}{1 + j\omega RC} \end{aligned}$$

$$= \frac{j\omega L_2 - \omega^2 R L_2 C + R}{1 + j\omega RC} = 805,7mS e^{-j4}$$



$$Z_4 = j\omega L_1 \parallel Z_3 = 666,2mS e^{-j33,07^\circ}$$

$$\underline{\hat{i}} = \frac{\underline{\hat{u}}}{Z_4} = 4,5A \cdot e^{j33,07^\circ}$$

$$\underline{\hat{u}}_C = 2,28V \cdot e^{-j8,75^\circ}$$

$$\underline{\hat{i}} = 4,5A \cdot e^{j33,07^\circ}$$