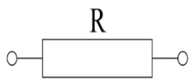
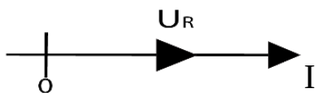
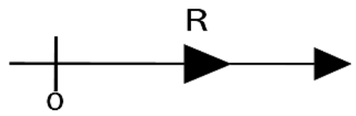
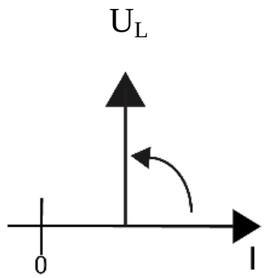
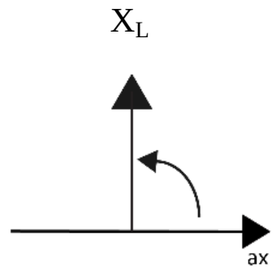
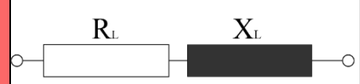
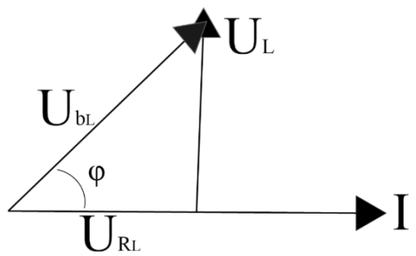
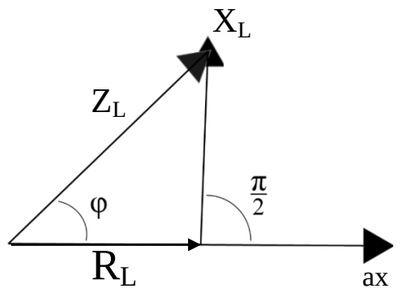
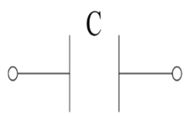
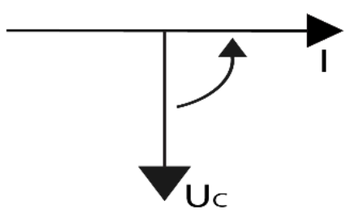
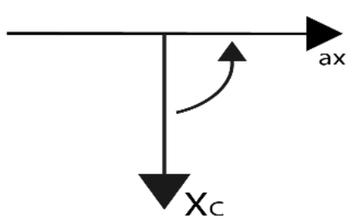
TABLOU DE SINTEZĂ CU ELEMENTELE R-L-C, ÎN C.A.S

Autor: Eleva Kajcsa Renata, cls. XID

An școlar 2017-2018

El.	Scheme echivalente	Diagrama fazorială a tensiunii	Diagrama fazorială a reactanței	Mărimi caracteristice	Defazaj $\Delta\theta = \varphi$	Expresii analitice
R				R = Rezistența electrică	$\Delta\theta = O^0$	$U_b(t)=U(t)= U_m \cdot \sin(\omega t)$ $I(t)= I_m \cdot \sin(\omega t)$
L				$X_L=\omega L$	$\Delta\theta = +\frac{\pi}{2}$	$U_L(t)=U_{Lm} \cdot \sin(\omega t)$ $I(t)=I_m \cdot \sin(\omega t - \frac{\pi}{2})$
	  			$Z_L=\sqrt{R_L^2 + X_L^2}$	$\Delta\theta = \varphi > 0$ $tg\ \varphi = \frac{UL}{UR}$ $tg\ \varphi = \frac{XL}{RL}$	$U_b(t)=U_{RL}+U_L$ $U_m \cdot \sin(\omega t) = I(t) \cdot R_L + L\frac{dI(t)}{dt}$
C				$X_C = \frac{1}{\omega C}$	$\Delta\theta = -\frac{\pi}{2}$	$U_C(t)=U(t)= \frac{Q(t)}{C}$ $I(t)=I_m \cdot \sin(\omega t + \frac{\pi}{2})$