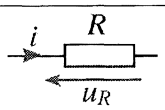
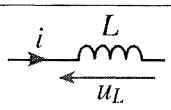
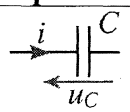
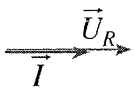
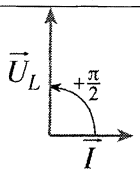
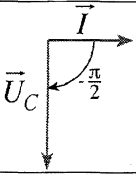
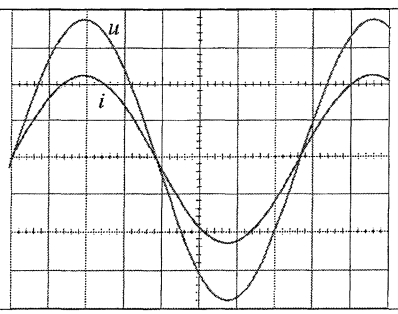
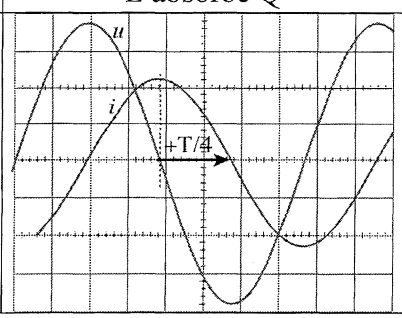
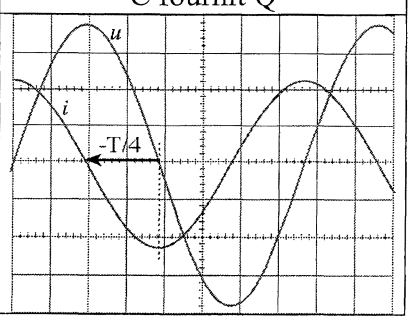
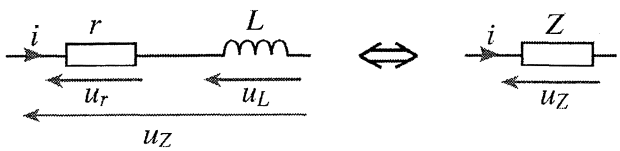
Les dipôles passifs linéaires

	Résistance R	Inductance L	Capacité C
Schéma			
Impédance Z (Ω)	$Z_R = R$	$Z_L = L\omega$	$Z_C = \frac{1}{C\omega}$
Relation entre les valeurs efficaces	$U_R = R.I$	$U_L = L\omega.I$	$U_C = \frac{1}{C\omega}.I$
Déphasage φ (rad)	$\varphi_R = 0$	$\varphi_L = \frac{\pi}{2}$	$\varphi_C = -\frac{\pi}{2}$
Représentation de Fresnel			
Puissance active P (W)	$P_R = U_R I = RI^2 = \frac{U^2}{R}$ R absorbe P	0	0
Puissance réactive Q (VAR)	0	$Q_L = U_L I = L\omega I^2$ L absorbe Q	$Q_C = -U_C I = -C\omega U_C^2$ C fournit Q
Chronogramme			

- **La bobine réelle**



Z est l'impédance de la bobine (en Ohms ; Ω).

$\boxed{Z = \sqrt{r^2 + L^2\omega^2}}$ et $\boxed{tg\varphi = \frac{L\omega}{r}}$

- **Le condensateur réel**

Le condensateur réel ne s'éloigne du condensateur parfait que pour les très hautes fréquences (f > 1 MHz) . Nous considérons ici que le condensateur est parfait.