Tensión

Parte Real $= |\bar{Z}| \cos(\varphi_v)$ Parte imaginaria $= |\bar{Z}| \operatorname{sen}(\varphi_v)$

Corriente

Parte real $= |\bar{Z}| \cos(\varphi_I)$ Parte imaginaria $= |\bar{Z}| \operatorname{sen}(\varphi_I)$

$$\frac{\bar{V}}{\bar{I}} = R \qquad \frac{V_{rms}}{I_{rms}} = R \qquad \varphi_z = \varphi_v - \varphi_I$$

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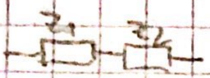
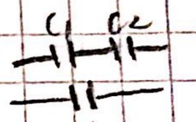
Asociacion en Serie de impedancia.



basicamente se suman



$\hookrightarrow \frac{C_1 \cdot C_2}{C_1 + C_2}$

$V_T = V_{Z_1} + V_{Z_2}$

$V_T = I \cdot Z_1 + I \cdot Z_2$

$V_T = I(Z_1 + Z_2)$

Si Z_1 y Z_2 son cap

$Z_T = Z_1 + Z_2$

$Z_T = \frac{-j}{wC_1} + \frac{-j}{wC_2}$

$$Z_T = \frac{-j}{w}\left(\frac{1}{C_1} + \frac{1}{C_2}\right) \Rightarrow Z_T = \frac{-j}{w} / \left(\frac{C_2 + C_1}{C_1 \cdot C_2}\right)$$

$$Z_T = \frac{-j}{w} : / \left(\frac{C_2 \cdot C_1}{C_1 + C_2}\right)$$

Si Z_1 y Z_2 son induc L

$Z_T = Z_1 + Z_2$

$Z_T = jwL_1 + jwL_2$

$Z_T = jw \cdot (L_1 + L_2)$