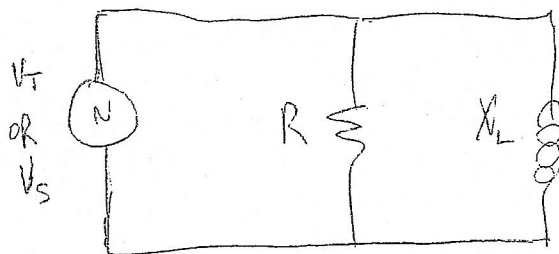


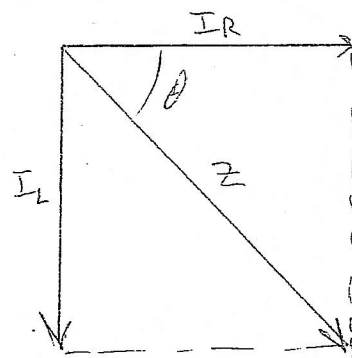
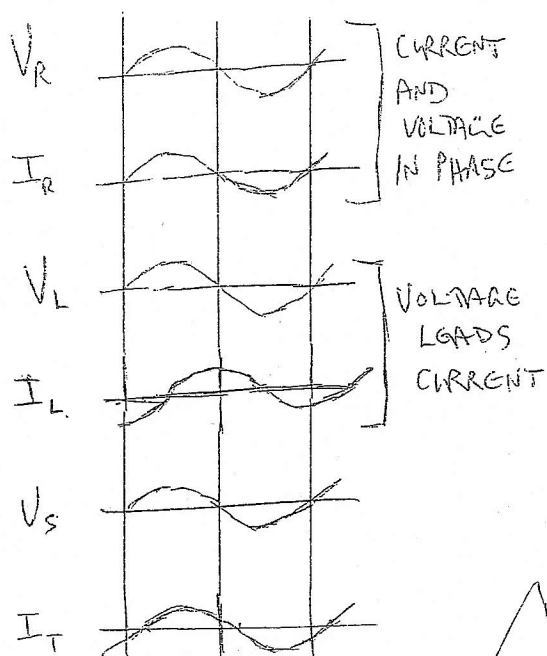
LECTURE NOTES

CHAPTER 12

ELI THE ICE MAN

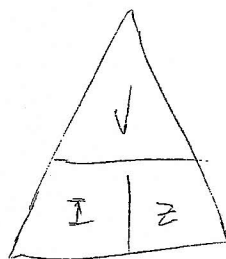
$$Z = \frac{R X_L}{\sqrt{R^2 + X_L^2}}$$

$$\theta = \tan^{-1}\left(\frac{R}{X_L}\right)$$



$$\theta = \tan^{-1}\left(\frac{I_L}{I_R}\right)$$

$$X_L = 2\pi f L$$



$$I_{TOT} = \sqrt{I_R^2 + I_L^2}$$

~~What~~: HAPPENS IF f CHANGES?

$f \uparrow$	$X_L \uparrow$	R_{same}	$Z_T \uparrow$	$I_T \downarrow$	$\theta \downarrow$	$I_L \downarrow$
$f \downarrow$	$X_L \downarrow$	R_{same}	$Z_T \downarrow$	$I_T \uparrow$	$\theta \uparrow$	$I_L \uparrow$

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