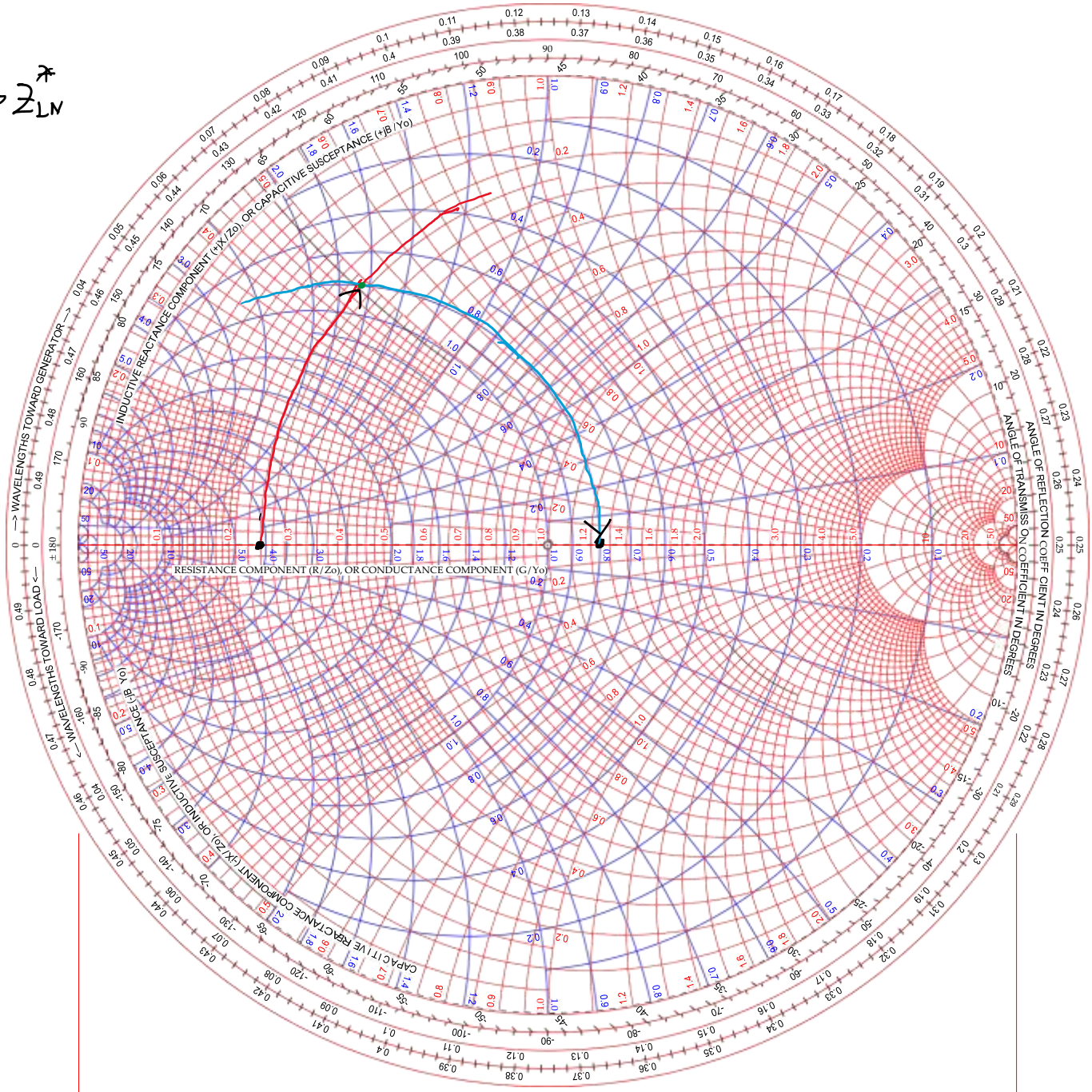
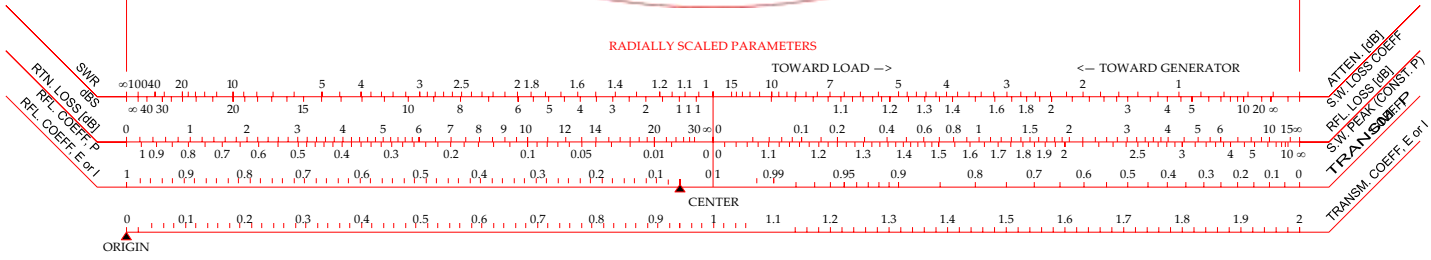
NAME	TITLE	DWG. NO.
		DATE
SMITH CHART FORM ZY-01-N	COLOR BY J. COLVIN, UNIVERSITY OF FLORIDA, 1997	

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES

$Z_{sN} \rightarrow Z_{LN}^{*}$





Impedansi → Z, X

Admitansi / Susceptansi : $Y = \frac{1}{Z}$, $B = \frac{1}{X}$

$X_{LN} = 0,5 - 0 = j0,5$

$B_{CN} = 0 - (-1,6) = j1,6$

$X_L = X_{LN} \cdot 400 = 0,5 \cdot 400 = 200 = 2\pi f L$

$B_C = \frac{B_{CN}}{N} = \frac{1,6}{400} = 2\pi f C$

$\frac{1}{X_C} = \frac{1,6}{400} \rightarrow 2\pi f C = \frac{1,6}{400}$

$\frac{1}{\frac{1}{2\pi f C}} = \frac{1,6}{400}$

$X_C = \frac{N}{X_{CN}} = \frac{1}{2\pi f C}$

$B_{L1N} = -0,5 - (0,2) = -0,7$

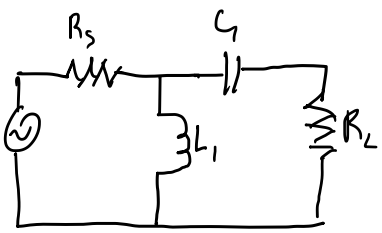
$X_{C1N} = -0,5 - (1,2) = -1,7$

$B_{L1} = \frac{B_{L1N}}{N} = \frac{-0,7}{400} = -\frac{1}{2\pi f L_1}$

$L_1 = \frac{400}{2\pi f \cdot 0,7}$

$X_{C1} = X_{C1N} \cdot N = -1,7 \cdot 400 = -2\pi f C$

$C_1 = \frac{170}{2\pi f}$



$B_{C2N} = 0,5 - 0,2 = 0,3$

$X_{L2N} = -0,5 - (-1,2) = 0,7$

$B_{C2} = \frac{B_{C2N}}{N} = \frac{0,3}{400} = 2\pi f C$

$C = \frac{0,3}{400 \cdot 2\pi f}$

$X_{L2} = X_{L2N} \cdot N = 0,7 \cdot 400 = 2\pi f L$

$L = \frac{70}{2\pi f}$