

# Smith Chart-3

Friday, May 22, 2020 8:21 AM

Example : 2

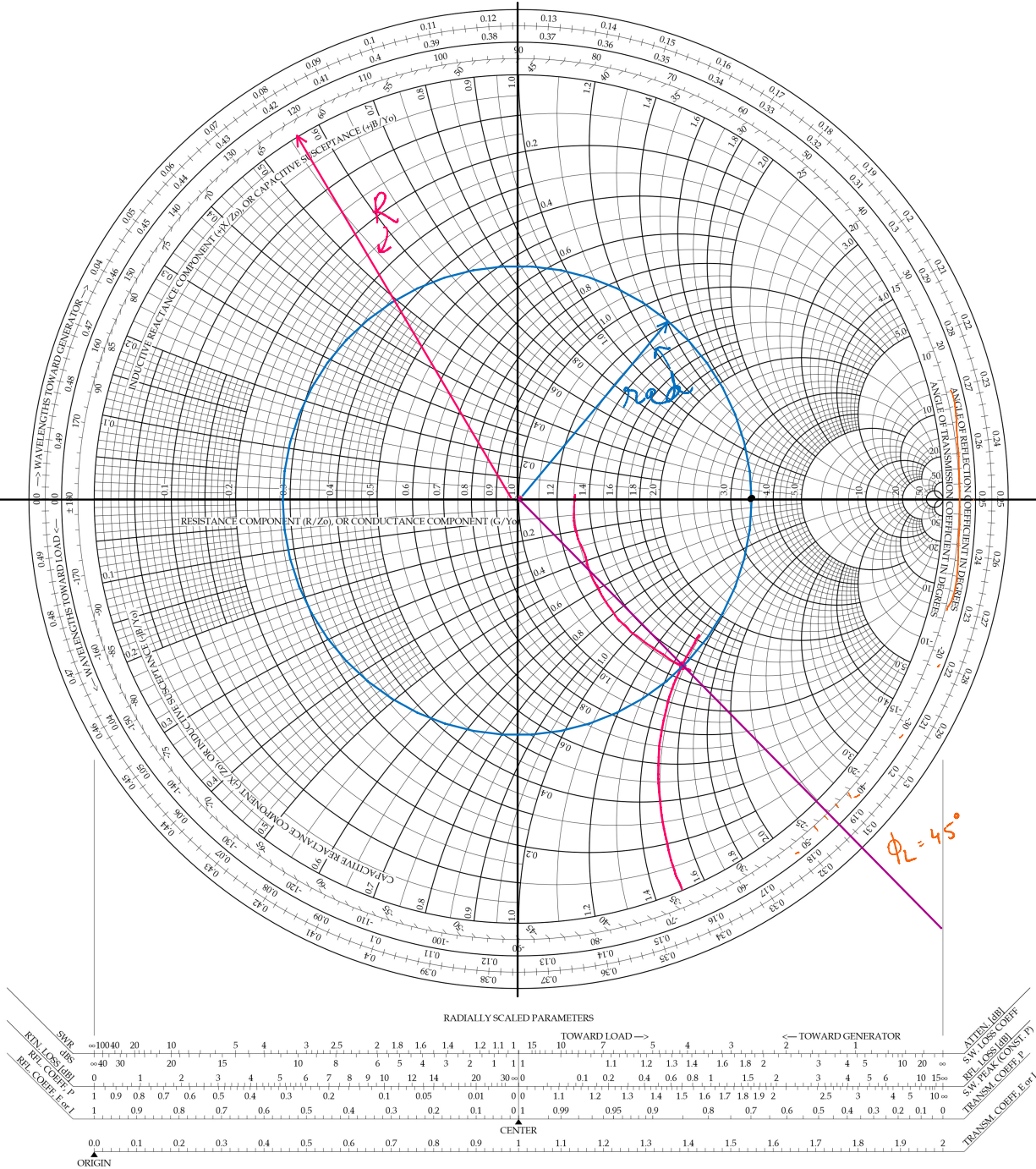
$$Z_L = 65 - j75 \Omega$$

$$Z_0 = 50 \Omega$$

$$Q: \Gamma_L?$$

$$Q: \phi_L?$$

## Smith Chart



Step 1: 
$$\bar{Z}_L = \frac{65 - j75}{50} = 1.3 - j1.5$$

Step 2: Draw constant VSWR circle.

Step 3: (a) Calculate VSWR = 3.4  $\rightarrow$   $|\Gamma|$

(b) Calculate  $|\Gamma| = \frac{\text{rad}}{R}$

Step 4: Draw a straight line from centre to outside the chart  
& read out  $\phi_L = -45^\circ$