

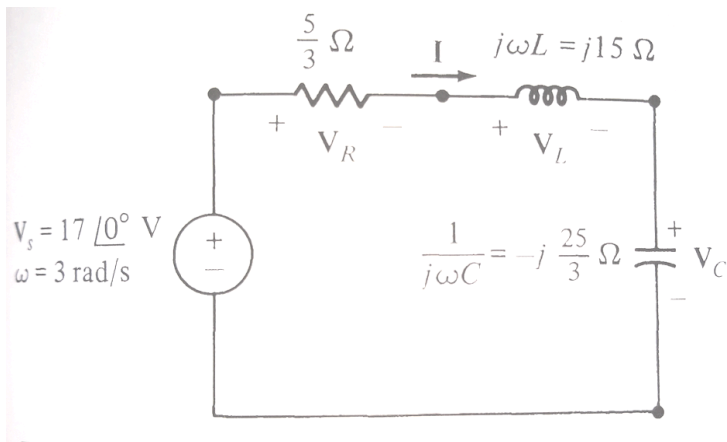
ES 332 Hwk 9

1.- Drill Exercise 8.8

For the (series RLC) circuit given in Fig. 8.12 (p. 369), determine V_R and V_L by using voltage division.

$$V_s = 17\angle(0^\circ), \quad R = \frac{5}{3}\Omega, \quad \omega = 3 \text{ rad/s}, \quad j\omega L = j15\Omega, \text{ and}$$

$$\frac{1}{j\omega C} = -j\frac{25}{3}\Omega$$



2.- (P 8.24 of text) For the (series RLC) circuit given in Fig. 8.5 below (p. 352), suppose that:

$$R = \frac{5}{4}\Omega, \quad L = \frac{1}{4} \text{ H}, \quad C = 1 \text{ F}, \text{ and } v_s = 4 \cos(2t) \text{ V}.$$

Find $v_c(t)$ using frequency domain analysis. Draw the corresponding phasor diagram.

