



$$R := 200 \, \Omega \quad L := 50 \, \text{mH} \quad C := 1 \, \mu\text{F}$$

$$\omega := 2000 \, \frac{\text{rad}}{\text{s}} \quad V := (5 \angle 22.5) \, \text{V}$$

$$X_L := j \cdot \omega \cdot L = 100i \, \Omega \quad X_C := \frac{1}{j \cdot \omega \cdot C} = -500i \, \Omega$$

Calcolare Z totale

$$Y := \frac{1}{R} + \frac{1}{X_L} + \frac{1}{X_C} = (0.005 - 0.008i) \, \text{S}$$

$$Z := \frac{1}{Y} = (56.18 + 89.888i) \, \Omega$$

polar() è la forma polare

$$\text{polar}(Z) = [106 \, \Omega \quad 57.995] = 106 \angle 57.995^\circ$$

$$I := \frac{V}{Z} = (-41.32 + 22.753i) \, \text{mA}$$

$$\text{polar}(I) = [0.047 \, \text{A} \quad 151.16]$$

$$I_R := \frac{V}{R} = (-0.022 - 0.012i) \, \text{A}$$

$$\text{polar}(I_R) = [0.025 \, \text{A} \quad -150.845]$$

$$I_L := \frac{V}{X_L} = (-0.024 + 0.044i) \, \text{A}$$

$$\text{polar}(I_L) = [0.05 \, \text{A} \quad 119.155]$$

$$I_C := \frac{V}{X_C} = (0.005 - 0.009i) \, \text{A}$$

$$\text{polar}(I_C) = [0.01 \, \text{A} \quad -60.845]$$

$$I_R + I_L + I_C = (-41.32 + 22.753i) \, \text{mA}$$