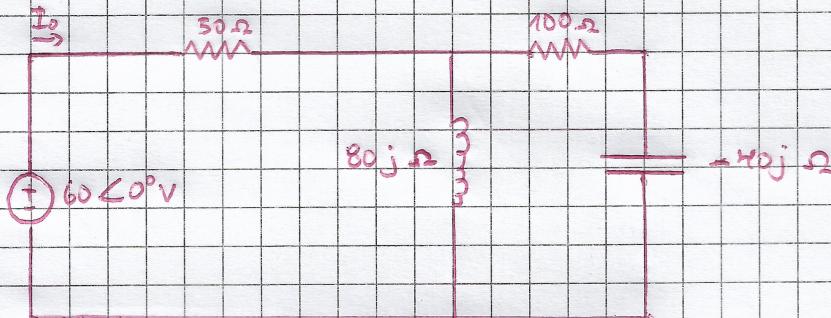


### Ejercicio 9.43

9.43 Halle la corriente  $I_o$  en el circuito que se muestra en la figura.

9.50.



$$Z_1 = 50 \Omega$$

$$Z_3 = 100 - 40j$$

$$Z_2 = 100 \Omega$$

$$Z_5 = \frac{Z_2 \cdot Z_3}{Z_2 + Z_3} = \frac{(100 - 40j)(80j)}{100 - 40j + 80j}$$

$$Z_2 = 80j \Omega$$

$$Z_6 = \frac{32 + 80j}{10 + 4j} = \frac{(16 + 40j)(5 - 2j)}{25 + 16} = \frac{160 - 168j}{41}$$

$$Z_4 = -40j \Omega$$

$$Z_{eq} = 50 + 160 - \frac{168j}{41} = 53.9 - 4.01j$$

$$V = 60 (\cos(0) + j \sin(0))$$

$$V = 60$$

$$I = \frac{60}{(53.9 - 4.01j)(53.9 + 4.01j)} = 1.11 + 0.0824j$$