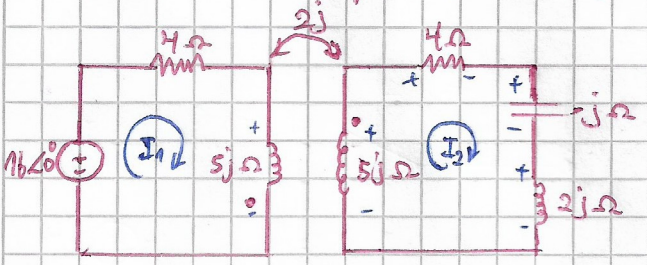
Determine la impedancia vista desde la fuente



$V = 16$

Malla 1

$$V = 4I_1 + 5jI_1 + 2jI_2 = 16$$

Malla 2

$$I_2(4 + 6j) + 2jI_1 = 0$$

$$I_2 = \frac{2j}{4 + 6j} I_1$$

$$I_1(4 + 5j) + \frac{2j(2j)}{4 + 6j} I_1 = 16$$

$$I_1\left(4 + 5j - \frac{4}{4 + 6j}\right) = 16$$

$$I_1 = 1.35929 - 2.0106j$$

$$Z = \frac{V}{I_1} = \frac{16}{1.35929 - 2.0106j}$$

$$Z = 3.692 + 5.462j\ [\Omega]$$