

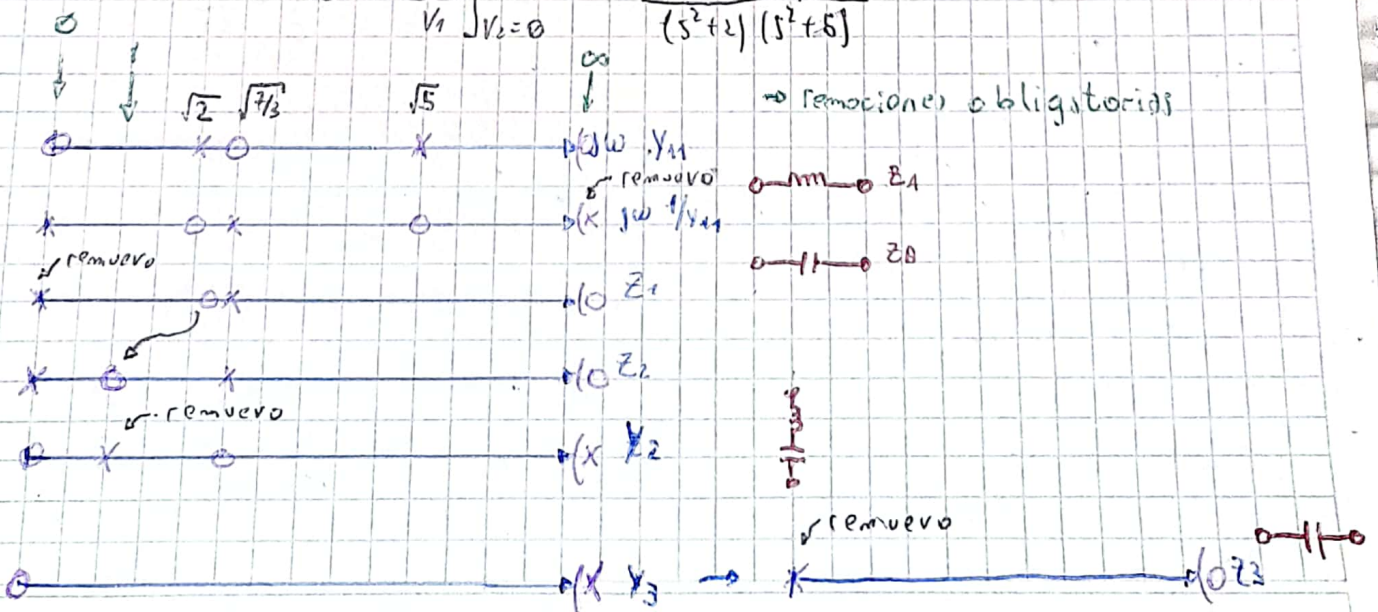
EJ6 TP Cuadripolos

Sintetizar: $Y_{11} = \frac{I_1}{V_1} \Big|_{V_2=0} = \frac{3s \cdot (s^2 + 7/3)}{(s^2 + 2)(s^2 + 5)}$

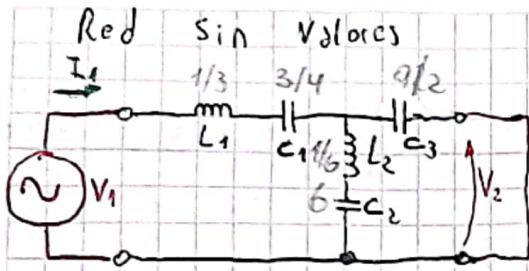
Tengo que avanzar y terminar en serie

$Y_{21} = \frac{I_2}{V_1} \Big|_{V_2=0} = \frac{s(s^2 + 1)}{(s^2 + 2)(s^2 + 5)}$

no remociones obligatorias



$$sL + 1/sc = \frac{s^2 Lc + 1}{sc} = \frac{50}{s^2 + 1/c}$$



$$\frac{1}{Y_{11}} = \frac{(s^2 + 2)(s^2 + 5)}{35(s^2 + 7/3)} \Rightarrow Z_1 = \frac{1}{Y_{11}} = \overset{Z_4}{K_{\infty} \cdot s} ; K_{\infty} = \lim_{s \rightarrow \infty} \frac{1}{Y_{11}} \cdot \frac{1}{s} = \frac{1}{3}$$

$$Z_1 = \frac{1}{Y_{11}} - \frac{s}{3} = \frac{s^4 + 7s^2 + 10 - s^4 - 7/3 s^2}{35(s^2 + 7/3)} = \frac{14/3 s^2 + 10}{35(s^2 + 7/3)}$$

$$Z_2 = Z_1 - \overset{Z_B}{\frac{K_0'}{s}} \Rightarrow K_0' = \lim_{s^2 \rightarrow -1} Z_1 \cdot s = \frac{4}{3}$$

$$Z_2 = \frac{14/3 s^2 + 10 - 4 s^2 - 28/3}{35(s^2 + 7/3)} = \frac{2/3 s^2 + 2/3}{35(s^2 + 7/3)} = \frac{2}{9} \cdot \frac{s^2 + 1}{5(s^2 + 7/3)}$$

$$Y_2 = \frac{1}{Z_2} = \frac{9}{2} \cdot \frac{5(s^2 + 7/3)}{(s^2 + 1)} ; Y_3 = Y_2 - \frac{2K_1 s}{s^2 + 1} \Rightarrow 2K_1 = \lim_{s^2 \rightarrow -1} \frac{9 \cdot 5(s^2 + 7/3)}{(s^2 + 1)} \cdot \frac{s^2 + 1}{s}$$

$$2K_1 = 6 \Rightarrow$$

$$Y_3 = \frac{9}{2} \left(\frac{s^3 + 7/3 s - 4/3 s}{s + 1} \right) = \frac{9}{2} \cdot \frac{s^3 + s}{s + 1} = \frac{9}{2} s$$

$$Z_3 = \frac{2}{9} \cdot \frac{1}{s} \Rightarrow C_3 = \frac{9}{2}$$

$$\frac{6s}{s^2 + 1} = \frac{1}{\frac{s}{6} + \frac{1}{6s}}$$