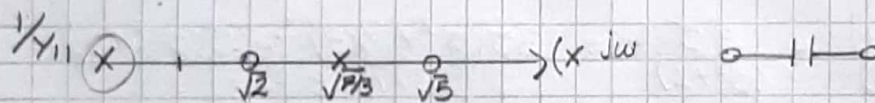
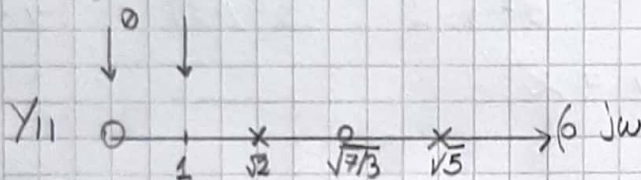


T5 11: Síntesis de func. transferencias descargadas

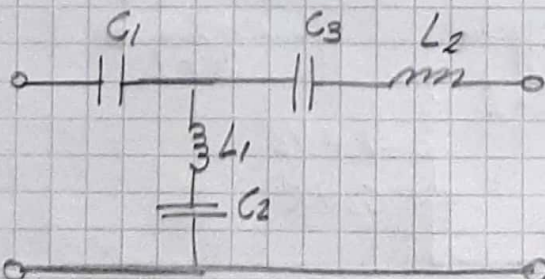
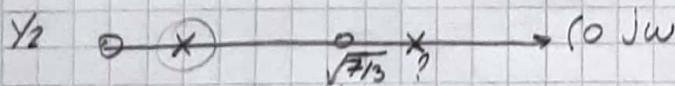
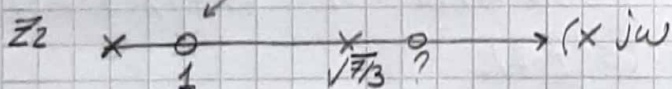
$$1) Y_{11} = \frac{I_1}{V_1} \bigg|_{V_2=0} = \frac{35(5^2 + 7/3)}{(5^2 + 2)(5^2 + 5)} \rightarrow A$$

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

- Se exige con $V_1 \times 6$ que el primer componente debe estar en serie.
- Y_{21} impone que tengo que hacer remociones en 0 y en 1
- Como $V_2=0$ en principio no debería terminar con un componente en derivación



↳ hago remoción parcial para poner un cero en 1



NOTA 20:30

$$\circ Z_2 = \frac{1}{Y_1} - Z_1 = 0 \Rightarrow \frac{(j^2+2)(j^2+5)}{3j(j^2+7/3)} - Z_1 = 0$$

$$\Rightarrow Z_1 = \frac{4}{3j(4/3)} = \frac{1}{j} \Rightarrow \underline{C_1 = 1}$$

$$Z_2 = \frac{(5^2+2)(5^2+5)}{35(5^2+7/3)} - \frac{1}{5} = \frac{(5^2+2)(5^2+5) - 3(5^2+7/3)}{35(5^2+7/3)}$$

$$Z_2 = \frac{5^4 + 75^2 + 10 - 35^2 - 7}{35(5^2+7/3)} = \frac{5^4 + 45 + 3}{35(5^2+7/3)}$$

$$Y_2 = \frac{35(5^2+7/3)}{(5^2+1)(5^2+3)}$$

$$\circ Y_4 = Y_2 - \frac{2R_1 5}{5^2+1} ; 2R_1 = \lim_{5^2 \rightarrow -1} Y_2 \frac{(5^2+1)}{5}$$

$$\frac{1}{\left(\frac{5}{2R_1} + \frac{1}{2R_1 5} \right)} = Y_3$$

$$2R_1 = \lim_{5^2 \rightarrow -1} \frac{3(5^2+7/3)}{(5^2+3)} = \frac{3(-1+7/3)}{(-1+3)}$$

$$2R_1 = 2$$

$$L_1 = 1/2R_1 = 1/2 \Rightarrow \underline{C_2 = 2}$$

$$Y_4 = \frac{35(5^2+7/3)}{(5^2+1)(5^2+3)} - \frac{25}{(5^2+1)} = \frac{35(5^2+7/3) - 25(5^2+3)}{(5^2+1)(5^2+3)}$$

$$Y_4 = \frac{35^3 + 75 - 25^3 - 65}{(5^2+1)(5^2+3)} = \frac{5^3 + 5}{(5^2+1)(5^2+3)} = \frac{5(5^2+1)}{(5^2+1)(5^2+3)}$$

$$Y_4 = \frac{5}{(5^2+3)} \Rightarrow Z_4 = \frac{(5^2+3)}{5}$$

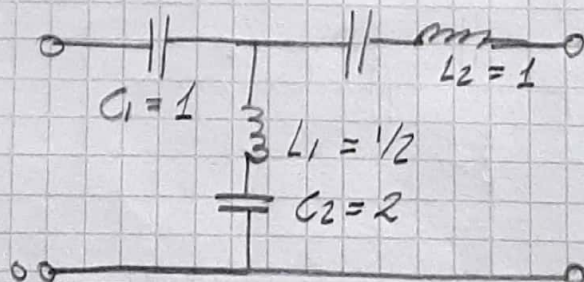
$$\circ Z_6 = Z_4 - \frac{R_0}{5} ; R_0 = \lim_{5^2 \rightarrow 0} Z_4 5 = 3$$

$$\Rightarrow \underline{C_3 = 1/3}$$

$$Z_6 = \frac{(5^2+3)}{5} - \frac{3}{5} = \frac{(5^2+3) - 3}{5} = 5$$

$$\Rightarrow \underline{L_2 = 1}$$

$$C_3 = 1/3$$



NOTA