

$$Z_2 = Z_{22} - \frac{K_1}{s+1}$$

$$K_1 = \lim_{s \rightarrow -1} Z_{22} \cdot (s+1)$$

$$K_1 = \lim_{s \rightarrow -1} \frac{5s^2 + 43s + 68}{(s+4)} = 10$$

$$Z_2 = \frac{5(s+2)(s+6.5)}{(s+4)(s+1)} - \frac{10}{(s+1)} = \frac{5s^2 + 43s + 68 - 10(s+4)}{(s+1)(s+4)}$$

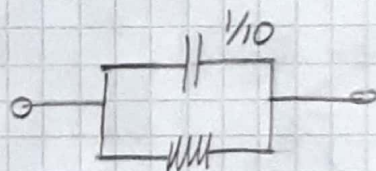
$$Z_2 = \frac{5s^2 + 33s + 28}{(s+1)(s+4)} = \frac{5(s+1)(s+28/5)}{(s+1)(s+4)}$$

$$Z_2 = 5 \frac{(s+28/5)}{(s+4)}$$

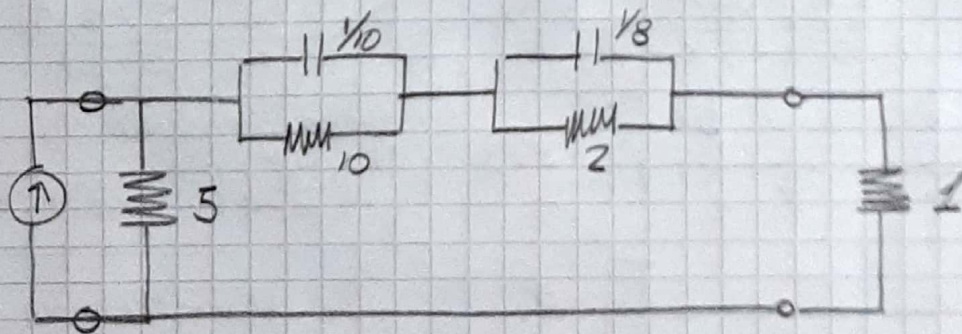
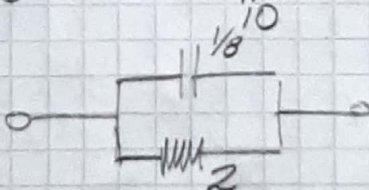
$$Z_4 = Z_2 - \frac{K_2}{(s+4)} \Rightarrow K_2 = \lim_{s \rightarrow -4} Z_2 \cdot (s+4) = 8$$

$$\Rightarrow Z_4 = \frac{5s+28}{s+4} - \frac{8}{s+4} = \frac{5(s+4)}{s+4} \Rightarrow Z_4 = 5$$

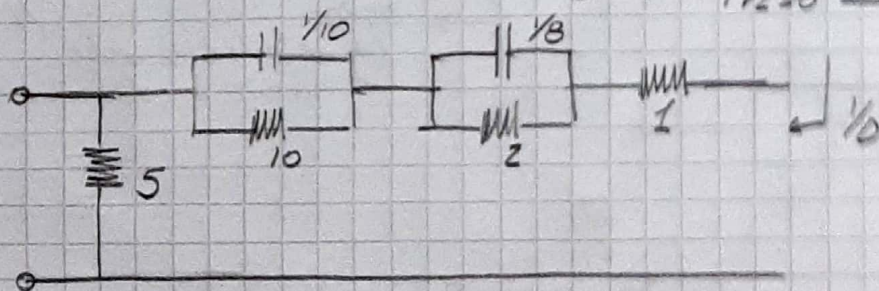
$$Z_{A1C1} = \frac{10}{s+1} = \frac{1}{\frac{s}{10} + \frac{1}{10}}$$



$$Z_{A2C2} = \frac{8}{s+4} = \frac{1}{\frac{s}{8} + \frac{1}{2}}$$



Verificación con parámetros $\frac{1}{0} = \frac{-I_2}{I_1} \bigg|_{V_2=0} \rightarrow$



como se da
condición de
cortocircuito la
carga de la fuente
en serie

$$T = \begin{pmatrix} 1 & 0 \\ 6 & 1 \end{pmatrix} \begin{pmatrix} 1 & \frac{1}{5s_1 + 1/2} \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & \frac{1}{5s_2 + 1/2} \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & 1/2 \\ 0 & 1 \end{pmatrix}$$

$$T = \begin{pmatrix} 1 & 0 \\ 1/5 & 1 \end{pmatrix} \begin{pmatrix} 1 & \frac{10}{5+1} \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & \frac{8}{5+4} \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$$

$$T = \begin{pmatrix} - & - \\ 1/5 & \frac{2}{5+1} + 1 \end{pmatrix} \begin{pmatrix} 1 & \frac{8}{5+4} \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$$

$$T = \begin{pmatrix} - & - \\ 1/5 & \frac{8/5}{5+4} + \frac{2}{5+1} + 1 \end{pmatrix} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$$

$$D = \frac{1}{5} + \frac{8/5}{5+4} + \frac{2}{5+1} + 1 = \frac{6(5+4)(5+1) + (5+1)8 + 10(5+4)}{5(5+4)(5+1)}$$

$$D = \frac{65^2 + 305 + 24 + 85 + 8 + 105 + 40}{5(5+4)(5+1)} = \frac{65^2 + 485 + 72}{5(5^2 + 55 + 4)}$$

$$D^{-1} = \frac{5(5^2 + 55 + 4)}{6(5^2 + 85 + 12)} \quad y \quad H = 5/6$$