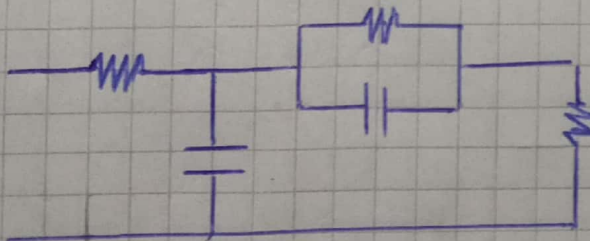
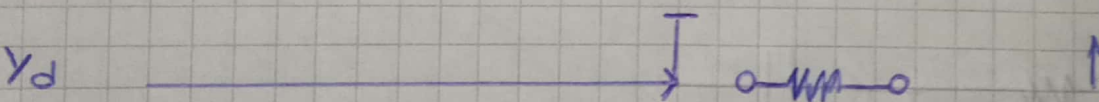
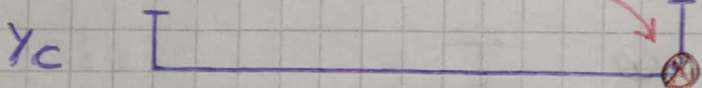
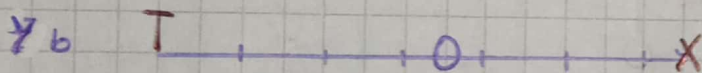
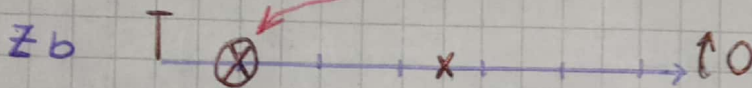
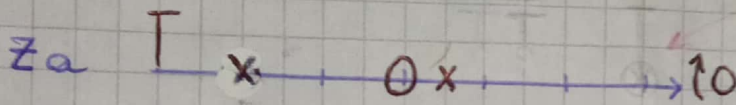
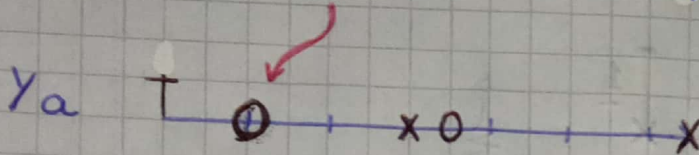
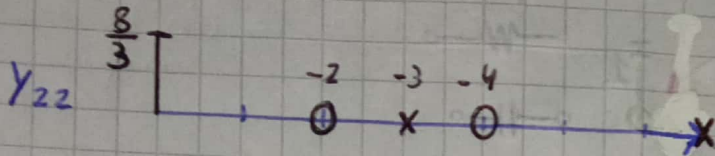
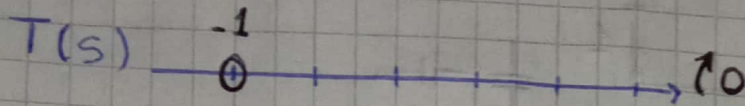


Punto 2

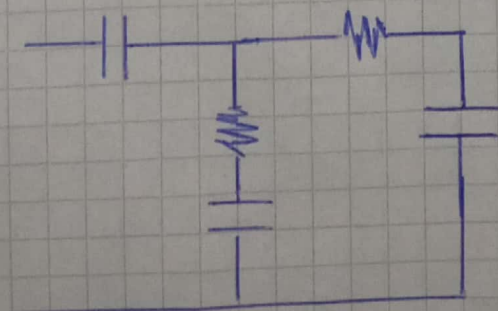
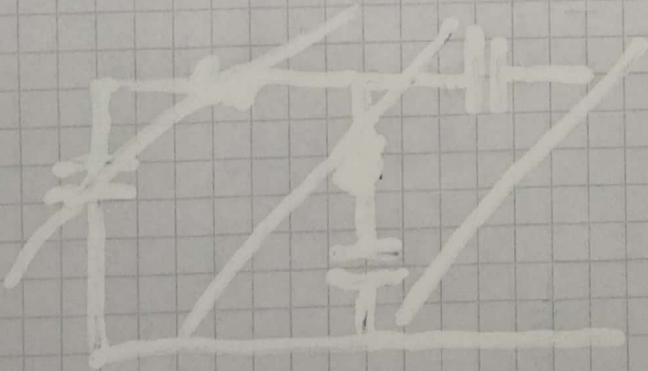
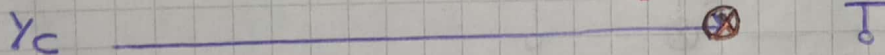
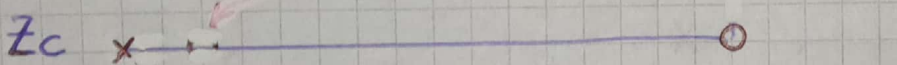
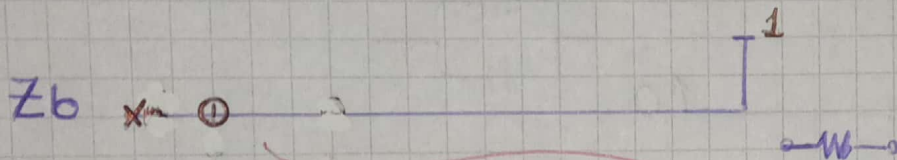
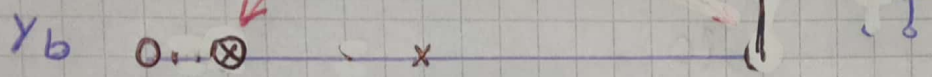
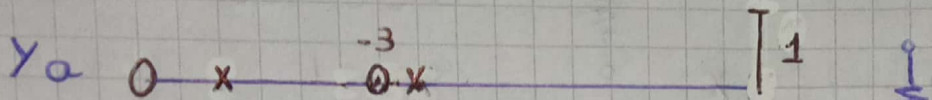
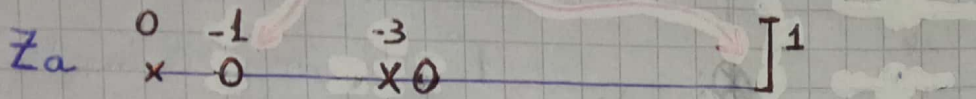
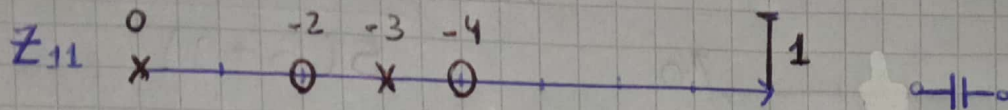
$$Y_{22} = \frac{(s+2)(s+4)}{(s+3)}$$

1° residuo parcialmente
en 0 para saber ser
en -1



$$Z_{11} = \frac{(s+2)(s+3)}{s(s+3)}$$

1º cancela parcialmente en 0



b) 1° Remuevo parcialmente en 0 para obter um zero em $-1 = 6$

$$\lim_{s \rightarrow -1} Y_{11}(s) = \frac{(s+2)(s+4)}{(s+3)} = \frac{(1)(3)}{(2)} = K_0$$

$$\rightarrow K_0 = \frac{3}{2}$$

$$Y_a(s) = Y_{11}(s) - K_0$$

$$Y_a(s) = \frac{(s+2)(s+4)}{(s+3)} - \frac{3}{2} = \frac{s^2 + \frac{9}{2}s + \frac{7}{2}}{(s+3)}$$

$$Y_a(s) = \frac{(s+1)(s+\frac{7}{2})}{(s+3)}$$

$$Z_a(s) = \frac{(s+3)}{(s+1)(s+\frac{7}{2})}$$

Remuevo el polo en -1

$$\lim_{s \rightarrow -1} \frac{(s+3)}{(s+\frac{7}{2})(s+1)} = \frac{K_1}{(s+1)} \Rightarrow K_1 = \frac{4}{5}$$

$$Z_b = Z_a - \frac{(\frac{4}{5})}{(s+1)} = \frac{(s+3)}{(s+\frac{7}{2})(s+1)} - \frac{(s+\frac{7}{2})(\frac{4}{5})}{(s+\frac{7}{2})(s+1)}$$

$$Z_b = \frac{(s+1)}{(s+1)(s+\frac{7}{2})} \cdot \frac{1}{5} = \frac{1}{5(s+\frac{7}{2})}$$

$$Y_b = 5(s+\frac{7}{2})$$

Remueves res en infinito

$$\lim_{s \rightarrow \infty} 5 \left(s + \frac{7}{2} \right) = s \cdot K_2 \Rightarrow \rightarrow K_2 = 5$$

$$Y_C = Y_b - 5 \cdot s = 5 \left(s + \frac{7}{2} \right) - 5 \cdot s$$

$$\rightarrow Y_C = \frac{7}{2} \cdot 5 = \frac{35}{2}$$

