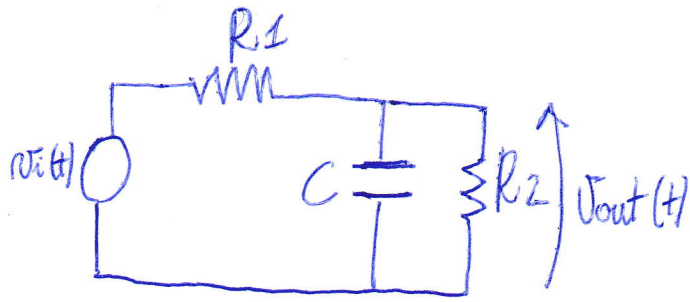
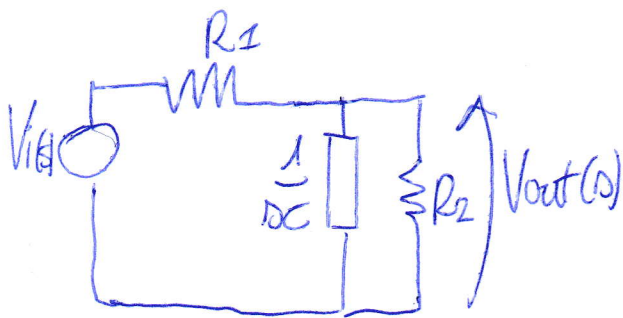


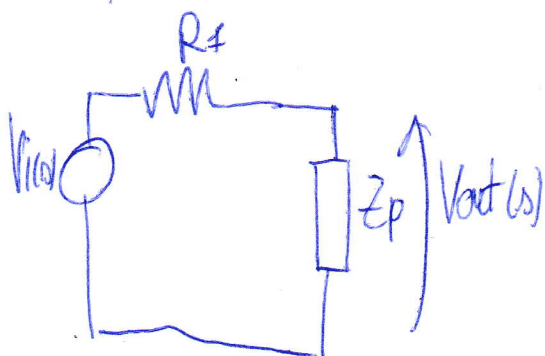
TROVARE LA FUNZIONE DI TRASFERIMENTO DEL SEGUENTE CIRCUITO NEL DOMINIO DI LAPLACE.



TRASFORMO IL CIRCUITO NEL DOMINIO DI LAPLACE:



SEMPLIFICO IL CIRCUITO



$$Z_p = \frac{\frac{1}{sC} \cdot R_2}{\frac{1}{sC} + R_2} = \frac{\frac{R_2}{sC}}{\frac{1 + sCR_2}{sC}} = \frac{R_2}{sC} \cdot \frac{sC}{1 + sCR_2} = \frac{R_2}{1 + sCR_2}$$

$$V_{out} = V_i \cdot \frac{Z_p}{Z_p + R_1} = V_i \cdot \frac{\frac{R_2}{1 + sCR_2}}{\frac{R_2}{1 + sCR_2} + R_1} = V_i \cdot \frac{R_2}{\frac{R_2 + R_1 + R_1 sCR_2}{1 + sCR_2}} = \frac{V_i R_2}{R_2 + R_1 + sCR_1 R_2}$$

$$\frac{V_{out}}{V_i} = \frac{R_2}{R_2 + R_1 + sCR_1 R_2} = \frac{R_2}{R_2 + R_1 + sCR_1 R_2}$$