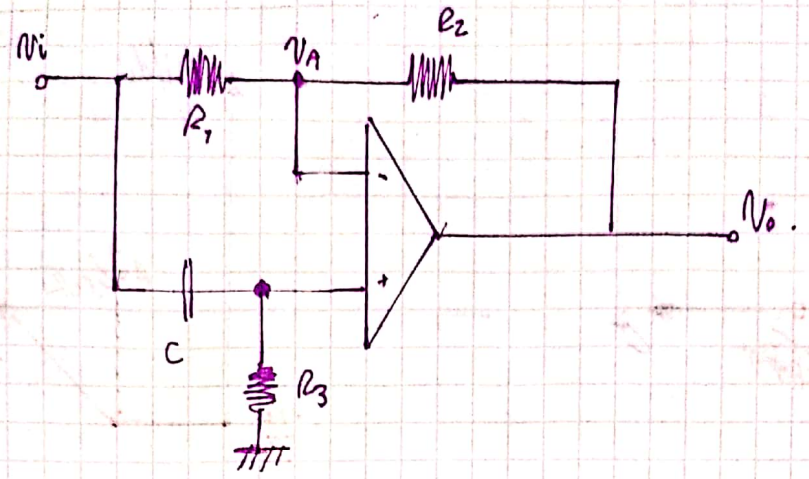
Juan Carlos Rivera

Trabajo Practico Semanal.



- Realimentación solo negativa.

- $V_A = R_3 \frac{V_i}{\frac{1}{sC} + R_3} = \frac{sCR_3 V_i}{1 + sCR_3} = \frac{s}{\frac{1}{R_3 C} + s} V_i$

- $\frac{V_i - V_A}{R_1} = \frac{V_A - V_o}{R_2} \rightarrow$

$V_i R_2 - V_A R_2 = R_1 V_A - R_1 V_o$

$V_i R_2 - V_A (R_2 + R_1) = -R_1 V_o$

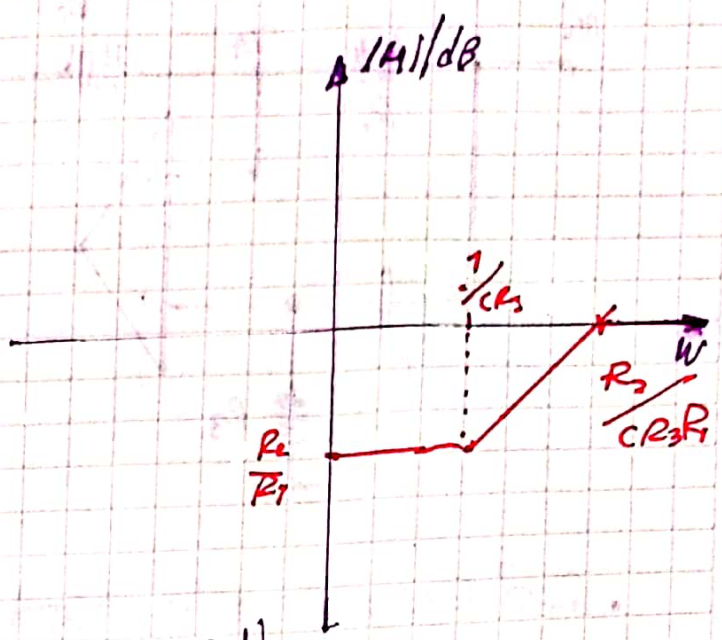
$-V_i R_2 + V_i \frac{s}{\frac{1}{sR_3} + s} (R_2 + R_1) = R_1 V_o$

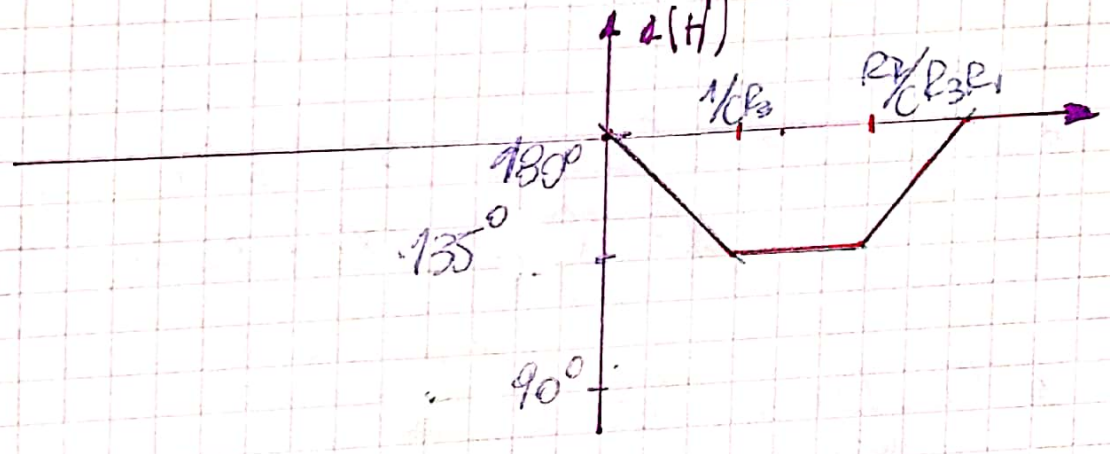
$V_i \left(\frac{s}{\frac{1}{sR_3} + s} (R_1 + R_2) - R_2 \right) = R_1 V_o$

$\frac{1}{R_1} \frac{sR_1 + sR_2 - R_2/CR_3 - R_2 s}{1/CR_3 + s} = \frac{V_o}{V_i}$.

NOTA

$$\therefore \quad \frac{s - R_2/CR_3R_1}{s + 1/CR_3} = H(s)$$





HOJA Nº

FECHA

Normalización:

$$H(\$) = \frac{\$ - \frac{R_2}{C R_1 R_3}}{\$ + \frac{1}{C R_3}} = \frac{\$ - \frac{R_2}{C R_1 R_3}}{\$ + w_p}$$

$$w_p = \frac{1}{C R_3} \qquad w_0 = \frac{R_2}{C R_1 R_3} = \frac{R_2}{R_1} \cdot w_p$$

$$H(\$) = \frac{\$ - (R_2/R_1) \cdot w_p}{\$ + w_p}$$

Normalización $w_p = 1$ y $R_2/R_1 = 1$

$$H(\$) = \frac{\$ - 1}{\$ + 1}$$