SET 3 NUEVO $Q = 0,25$ $\frac{W_0}{Q} = \frac{2841,666}{0,25} = 11366,664$

LOS PARAMETROS DE H1

$W_0 = 2841,666$

$h_0 = 3,49$

$$H(s) = \frac{28181980}{s^2 + 11366,66s + 8075065}$$

POLOS $\begin{cases} -761,42 \\ -10605,2 \end{cases}$

$$\mathcal{L}^{-1}[H(s)] = h(t)$$

$$\mathcal{L}^{-1}\left[\frac{28181980}{s^2 + 11366,66s + 8075065}\right]$$

$$(s+761,4)(s+10605,2)$$

$$\mathcal{L}^{-1}\left[\frac{28181980}{(s+761,4)(s+10605,2)}\right]$$

$e^{-\alpha t}u(t)$	$\frac{1}{s+\alpha}$	$\{s \in \mathbb{C} : \mathrm{Re}\{s\} > -\mathrm{Re}\{\alpha\}\}$

- **Linealidad:** Sean $x(t) \overset{\mathcal{L}}{\longleftrightarrow} X(s)$ e $y(t) \overset{\mathcal{L}}{\longleftrightarrow} Y(s)$. Entonces tenemos:

$$\alpha x(t) + \beta y(t) \overset{\mathcal{L}}{\longleftrightarrow} \alpha X(s) + \beta Y(s)$$

$$28181980\left[\frac{K_1}{(s+761,4)} + \frac{K_2}{(s+10605,2)}\right]$$

$$k_i = (s + p_i)F(s)\,\big|_{s=-p_i}$$

$$K_1 = \lim_{s \to -761,4} \frac{(s+761,4)}{(s+761,4)(s+10605,2)}$$

L'H

$$\lim_{s \to -761,4} \frac{1}{s+10605,2} = \frac{5}{49213}$$

$$K_2 = \lim_{s \to -10605,2} \frac{s+10605,2}{(s+761,4)(s+10605,2)} =$$

$$\lim_{s \to -10605,2} \frac{1}{s+761,4} = \frac{-5}{49213}$$

$$H = 2818\,1280 \cdot \left(\frac{\frac{-5}{49213}}{(s+10605,2)} + \frac{\frac{5}{49213}}{(s+761,4)} \right)$$

$$H(s) = \frac{-2862,92}{(s+10605,2)} + \frac{2862,92}{(s+761,4)}$$

$e^{-\alpha t}u(t)$	$\frac{1}{s+\alpha}$	$\{s \in \mathbb{C} : \mathrm{Re}\{s\} > -\mathrm{Re}\{\alpha\}\}$

- **Linealidad:** Sean $x(t) \overset{\mathcal{L}}{\longleftrightarrow} X(s)$ e $y(t) \overset{\mathcal{L}}{\longleftrightarrow} Y(s)$. Entonces tenemos:

$$\alpha x(t) + \beta y(t) \overset{\mathcal{L}}{\longleftrightarrow} \alpha X(s) + \beta Y(s)$$

$$h(t) = -2862,92 \cdot e^{-10605,2t} + 2862,92\, e^{-761,4t}$$

$$\boxed{h(t) = 2862,92 \left(-e^{-10605,2t} + e^{-761,4} \right)}$$