Transformada $\mathcal{L}$	Función causal (Discreto: $t = kT$)	Transformada $\mathcal{Z}$
$\frac{1}{(s+\alpha)^2}$	$te^{-\alpha t}$	$\frac{Te^{-\alpha T}z}{\left(z-e^{-\alpha T}\right)^2}$
$\frac{1}{s^2}$	t	$\frac{Tz}{\left(z-1\right)^2}$
$\frac{s}{(s+\alpha)^2}$	$(1-\alpha t)e^{-\alpha t}$	$\frac{\left(z-(1+\alpha T)e^{-\alpha T}\right)z}{\left(z-e^{-\alpha T}\right)^2}$
$\frac{1}{s}$	1	$\frac{z}{z-1}$
1	$\delta(t)$	1
$\frac{\alpha_2-\alpha_1}{(s+\alpha_1)(s+\alpha_2)}$	$e^{-\alpha_1 t}-e^{-\alpha_2 t}$	$\frac{\left(e^{-\alpha_1 T}-e^{-\alpha_2 T}\right)z}{\left(z-e^{-\alpha_1 T}\right)\left(z-e^{-\alpha_2 T}\right)}$
$\frac{\alpha}{s(s+\alpha)}$	$1-e^{-\alpha t}$	$\frac{\left(1-e^{-\alpha T}\right)z}{(z-1)\left(z-e^{-\alpha T}\right)}$
$\frac{(\alpha_2-\alpha_1)s}{(s+\alpha_1)(s+\alpha_2)}$	$\alpha_2 e^{-\alpha_2 t}-\alpha_1 e^{-\alpha_1 t}$	$\frac{\left[z(\alpha_2-\alpha_1)-\left(\alpha_2 e^{-\alpha_1 T}-\alpha_1 e^{-\alpha_2 T}\right)\right]z}{\left(z-e^{-\alpha_1 T}\right)\left(z-e^{-\alpha_2 T}\right)}$
$\frac{1}{s+\alpha}$	$e^{-\alpha t}$	$\frac{z}{z-e^{-\alpha T}}$
$\frac{s+\alpha}{(s+\alpha)^2+\omega_d^2}$	$e^{-\alpha t}\cos\omega_d t$	$\frac{\left(z-e^{-\alpha T}\cos\omega_d T\right)z}{z^2-2e^{-\alpha T}\cos(\omega_d T)z+e^{-2\alpha T}}$
$\frac{\omega_d}{(s+\alpha)^2+\omega_d^2}$	$e^{-\alpha t}\sin\omega_d t$	$\frac{e^{-\alpha T}\sin(\omega_d T)z}{z^2-2e^{-\alpha T}\cos(\omega_d T)z+e^{-2\alpha T}}$