

Dominio del tiempo, $x(t)$	Dominio de la variable s , $X(s)$	ROC
$ax_1(t) + bx_2(t)$	$aX_1(s) + bX_2(s)$	$R' = R_1 \cap R_2$
$x(t - t_0)$	$e^{-st_0} X(s)$	$R' = R$
$e^{s_0 t} x(t)$	$X(s - s_0)$	$R' = R + \Re\{s_0\}$
$x(at)$	$\frac{1}{ a } X\left(\frac{s}{a}\right)$	$R' = aR$
$x(-t)$	$X(-s)$	$R' = -R$
$\frac{dx(t)}{dt}$	$sX(s) - x(0^-)$	$R' \supset R$
$-tx(t)$	$\frac{dX(s)}{ds}$	$R' \supset R$
$\int_{-\infty}^t x(\tau) d\tau$	$\frac{X(s)}{s}$	$R' = R \cap \{\Re\{s\} > 0\}$
$\frac{x(t)}{t}$	$\int_s^{\infty} X(s) ds$	$R' = R \cap \{\Re\{s\} > 0\}$
$x_1(t) * x_2(t)$	$X_1(s) \cdot X_2(s)$	$R' \supset R_1 \cap R_2$

Tabla 1. Propiedades de la Transformada de Laplace

Dominio del tiempo, $x[n]$	Dominio de la variable z , $X(z)$	ROC
$ax_1[n] + bx_2[n]$	$aX_1(z) + bX_2(z)$	$R' = R_1 \cap R_2$
$x[n - n_0]$	$z^{-n_0} X(z)$	$R' = R$
$e^{j\omega_0 n} x[n]$	$X(e^{-j\omega_0} z)$	R
$z_0^n x[n]$	$X\left(\frac{z}{z_0}\right)$	$z_0 R$
$a^n x[n]$	$X(a^{-1} z)$	$R' = aR$
$x^*[n]$	$X^*(z^*)$	R
$x_1[n] * x_2[n]$	$X_1(z)X_2(z)$	At least the intersection of R_1 and R_2
$x[n] - x[n - 1]$	$(1 - z^{-1})X(z)$	At least the intersection of R and $ z > 0$
$\sum_{k=-\infty}^n x[k]$	$\frac{1}{1-z^{-1}} X(z)$	At least the intersection of R and $ z > 1$
$nx[n]$	$-z \frac{dX(z)}{dz}$	R

Tabla 2. Propiedades de la Transformada de z