Tabla de Transformadas de Laplace Comunes*

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Based on *Table of Common Laplace Transforms*† by
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Abstract

Lista señales y ROC para varias transformadas de Laplace.

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Señal	**Transformada de Laplace**	**Región de Convergencia**
$\delta(t)$	1	All s
$\delta(t-T)$	$e^{-(sT)}$	All s
$u(t)$	$\frac{1}{s}$	$\Re(s) > 0$
$-u(-t)$	$\frac{1}{s}$	$\Re(s) < 0$
$tu(t)$	$\frac{1}{s^2}$	$\Re(s) > 0$
$t^n u(t)$	$\frac{n!}{s^{n+1}}$	$\Re(s) > 0$
$-(t^n u(-t))$	$\frac{n!}{s^{n+1}}$	$\Re(s) < 0$
$e^{-(\lambda t)} u(t)$	$\frac{1}{s+\lambda}$	$\Re(s) > -\lambda$
$\left(-e^{-(\lambda t)}\right) u(-t)$	$\frac{1}{s+\lambda}$	$\Re(s) < -\lambda$
$te^{-(\lambda t)} u(t)$	$\frac{1}{(s-\lambda)^2}$	$\Re(s) > -\lambda$
$t^n e^{-(\lambda t)} u(t)$	$\frac{n!}{(s+\lambda)^{n+1}}$	$\Re(s) > -\lambda$
$-\left(t^n e^{-(\lambda t)} u(-t)\right)$	$\frac{n!}{(s+\lambda)^{n+1}}$	$\Re(s) < -\lambda$
$\cos(bt) u(t)$	$\frac{s}{s^2+b^2}$	$\Re(s) > 0$
$\sin(bt) u(t)$	$\frac{b}{s^2+b^2}$	$\Re(s) > 0$
$e^{-(at)} \cos(bt) u(t)$	$\frac{s+a}{(s+a)^2+b^2}$	$\Re(s) > -a$
$e^{-(at)} \sin(bt) u(t)$	$\frac{b}{(s+a)^2+b^2}$	$\Re(s) > -a$
$\frac{d^n}{dt^n} \delta(t)$	s^n	All s

Table 1