Transformada de Laplace

$f(t)=\mathcal{L}^{-1}(F)(t)$	$F(s)=\mathcal{L}(f)(s)$	$f(t)=\mathcal{L}^{-1}(F)(t)$	$F(s)=\mathcal{L}(f)(s)$
1	$\frac{1}{s},\ s>0$	e^{at}	$\frac{1}{s-a},\ s>a$
$\cos at$	$\frac{s}{s^2+a^2},\ s>0$	$\operatorname{sen} at$	$\frac{a}{s^2+a^2},\ s>0$
$t^n,\quad n=0,1,2,...$	$\frac{n!}{s^{n+1}},\ s>0$	$e^{at}f(t)$	F(s-a)
$f'(t)$	$sF(s)-f(0)$	$f''(t)$	$s^2F(s)-sf(0)-f'(0)$
$t\cos at$	$\frac{s^2-a^2}{(s^2+a^2)^2},\ s>0$	$t \operatorname{sen} at$	$\frac{2as}{(s^2+a^2)^2},\ s>0$
$\operatorname{sen} at - at\cos at$	$\frac{2a^3}{(s^2+a^2)^2},\ s>0$	$\delta(t-t_0)$	$e^{t_0 s},\ s>0$
$u_a(t)=\begin{cases}0, & 0\le t<a\\ 1, & t\ge a\end{cases}$	$\frac{e^{-as}}{s},\ s>0$	$u_a(t)f(t-a)$	$e^{-as}F(s)$
$f(t)\delta(t-t_0)$	$e^{t_0 s}f(t_0)$	$\int_0^t f(t-x)g(x)dx$	$F(s)G(s)$

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$\cos at$	$\frac{s}{s^2+a^2},\ s>0$	$\operatorname{sen} at$	$\frac{a}{s^2+a^2},\ s>0$
$t^n,\quad n=0,1,2,...$	$\frac{n!}{s^{n+1}},\ s>0$	$e^{at}f(t)$	F(s-a)
$f'(t)$	$sF(s)-f(0)$	$f''(t)$	$s^2F(s)-sf(0)-f'(0)$
$t\cos at$	$\frac{s^2-a^2}{(s^2+a^2)^2},\ s>0$	$t \operatorname{sen} at$	$\frac{2as}{(s^2+a^2)^2},\ s>0$
$\operatorname{sen} at - at\cos at$	$\frac{2a^3}{(s^2+a^2)^2},\ s>0$	$\delta(t-t_0)$	$e^{t_0 s},\ s>0$
$u_a(t)=\begin{cases}0, & 0\le t<a\\ 1, & t\ge a\end{cases}$	$\frac{e^{-as}}{s},\ s>0$	$u_a(t)f(t-a)$	$e^{-as}F(s)$
$f(t)\delta(t-t_0)$	$e^{t_0 s}f(t_0)$	$\int_0^t f(t-x)g(x)dx$	$F(s)G(s)$