Laplace Transforms' Table	Notation $L(f(t)) = F(s)$
t^p where $p > -1$	$\Gamma(p+1)/s^{p+1}$ where $\Gamma(p+1) = p!$ for non negative integer p.
e^{at}	$\frac{1}{s-a}$
$\sin(at)$ $\cos(at)$	$\frac{a}{s^2+a^2}$ $\frac{s}{s^2+a^2}$
$\sinh(at)$ $\cosh(at)$	$\frac{a}{s^2-a^2}$ $\frac{s}{s^2-a^2}$
$u_c(t)$ $\delta(t-c)$	$\frac{e^{-cs}}{s}$ where $c \geq 0$ e^{-cs} where $c \geq 0$
$t^n f(t)$ $e^{at} f(t)$	$(-1)^n D_s^n F(s)$ $L(f(t))\|_{s \to s-a}$ also explained as $F(s-a)$
$u_c(t) f(t)$	$e^{-cs} L(f(t+c))$
$D^n(f(t))$	$s^n F(s) - s^{n-1} f(0) - s^{n-2} Df(0) - \cdots D^{n-1} f(0)$
$(f * g)(t) = \int_0^{t-\tau} f(t-\tau) g(\tau)\, d\tau$	$F(s)G(s)$
Inverse Transform formulas $\frac{1}{(s-a)^n}$	Notation $L(f(t)) = F(s)$ $\frac{t^{n-1} e^{at}}{(n-1)!}$ where denominator can be $\Gamma(n)$ for $n > 0$
$\frac{l(s-b)+ma}{(s-b)^2+a^2}$	$e^{bt}(l\cos(at) + m\sin(at))$
$\frac{l(s-b)+ma}{(s-b)^2-a^2}$	$e^{bt}(l\cosh(at) + m\sinh(at))$
$F(s)$	$e^{at} L^{-1} F(s+a)$ The shift formula!
$D_s^n(F(s))$	$(-1)^n t^n f(t)$
$e^{-cs} F(s)$ e^{-cs}	$u_c(t) f(t-c)$ where $f(t) = L^{-1} F(s)$ $\delta(t-c)$