Table of Laplace Transforms

$f(t)$	$\mathcal{L}\{f(t)\} = F(s)$
$g(t)$	$\mathcal{L}\{g(t)\} = G(s)$
1	$\dfrac{1}{s}$
e^{at}	$\dfrac{1}{s-a}$
t^n	$\dfrac{n!}{s^{n+1}}$, n a positive integer
$\sin kt$	$\dfrac{k}{s^2 + k^2}$
$\cos kt$	$\dfrac{s}{s^2 + k^2}$
$e^{at} f(t)$	$F(s-a)$ 7.3.1
$\mathcal{U}(t-a)$	$\dfrac{e^{-as}}{s}$ 7.3.2
$f(t-a)\mathcal{U}(t-a)$	$e^{-as}F(s)$ 7.3.2
Alternative $g(t)\mathcal{U}(t-a)$	$e^{-as}\mathcal{L}\{g(t+a)\}$ 7.3.2
$\int_0^t f(\tau) g(t-\tau)\, d\tau$	$F(s)G(s)$ 7.4.2
$\delta(t-t_0)$	e^{-st_0} 7.5
$f^{(n)}(t)$	$s^n F(s) - s^{n-1} f(0) - s^{n-2} f'(0) - \cdots - f^{(n-1)}(0)$