Table of Laplace Transforms

$y(t)$	$\mathcal{L}[y(t)] = Y(s)$
1	$\frac{1}{s}$
$e^{at}y(t)$	$Y(s-a)$
$u_c(t)$	$\frac{e^{-cs}}{s}$
$u_c(t)y(t-c)$	$e^{-cs}Y(s)$
$ty(t)$	$-\frac{dY(s)}{ds}$
$y(at)$	$\frac{1}{a}Y(\frac{s}{a}), \quad a > 0$
$y'(t)$	$sY(s) - y(0)$
$y''(t)$	$s^2Y(s) - sy(0) - y'(0)$
$t^n \ (n = 0, 1, 2, \dots)$	$\frac{n!}{s^{n+1}}$
$\sin \omega t$	$\frac{\omega}{s^2 + \omega^2}$
$\cos \omega t$	$\frac{s}{s^2 + \omega^2}$
e^{at}	$\frac{1}{s-a}$
$\delta(t-c)$	e^{-cs}