

Table of Laplace Transforms	
Special Rules	
$f(t)$	$F(s) = (\mathcal{L}(f))(s)$
1	$\frac{1}{s}$
$t$	$\frac{1}{s^2}$
$t^n$	$\frac{n!}{s^{n+1}}$
$e^{at}$	$\frac{1}{s-a}$
$\cos(\omega t)$	$\frac{s}{s^2 + \omega^2}$
$\sin(\omega t)$	$\frac{\omega}{s^2 + \omega^2}$
$e^{at} \cos(\omega t)$	$\frac{s-a}{(s-a)^2 + \omega^2}$
$e^{at} \sin(\omega t)$	$\frac{\omega}{(s-a)^2 + \omega^2}$
$H_c(t)$	$\frac{e^{-cs}}{s}$
$H_{ab}(t)$	$\frac{e^{-as} - e^{-bs}}{s}$

Table of Laplace Transforms	
General Rules	
$f(t)$	$F(s) = (\mathcal{L}(f))(s)$
$g(t)$	$G(s) = (\mathcal{L}(g))(s)$
$f(t) + g(t)$	$F(s) + G(s)$
$f(t) - g(t)$	$F(s) - G(s)$
$cf(t)$	$cF(s)$
$e^{at} f(t)$	$F(s-a)$
$f'(t)$	$sF(s) - f(0)$
$f''(t)$	$s^2 F(s) - sf(0) - f'(0)$
$tf(t)$	$-F'(s)$
$H(t-c)f(t-c)$	$e^{-cs} F(s)$
below $f(t)$ is periodic with the period $T$ and $f_T(t)$ is the window function of $f(t)$	
$f_T(t)$	$F_T(s)$
$f(t)$	$\frac{F_T(s)}{1 - e^{-Ts}}$