APMA 0350 – LAPLACE TRANSFORM TABLE

$f(t)$	$\mathcal{L}\{f(t)\}$
1	$\frac{1}{s}$
e^{at}	$\frac{1}{s-a}$
t^n	$\frac{n!}{s^{n+1}}$
$\sin(at)$	$\frac{a}{s^2+a^2}$
$\cos(at)$	$\frac{s}{s^2+a^2}$
$u_c(t)$	$\frac{e^{-cs}}{s}$
$u_c(t)f(t-c)$	$e^{-cs}\mathcal{L}\{f(t)\}$
$e^{at}f(t)$	$F(s-a)$
$\delta(t-c)$	e^{-cs}
y'	$s\mathcal{L}\{y\}-y(0)$
y''	$s^2\mathcal{L}\{y\}-sy(0)-y'(0)$

$$(f \star g)(t) = \int_0^t f(t-\tau)g(\tau)d\tau$$