Laplace transform pairs	
Time Domain	Laplace Domain
$f(t)$	$F(s)$
Unit impulse $\delta(t)$	
Unit step $u(t)$	
$tu(t)$	
$\frac{1}{2}t^2u(t)$	
$Ae^{-at}u(t)$	
$te^{-at}u(t)$	
$\frac{1}{2}t^2e^{-at}u(t)$	
$\sin(\omega t)u(t)$	
$\cos(\omega t)u(t)$	
$e^{-at}\sin(\omega t)u(t)$	
$e^{-at}\cos(\omega t)u(t)$	
$\frac{df}{dt}$	
$\frac{d^nf}{dt^n}$	
$\int_0^t f(\tau)d\tau$	