

function	Laplace transform
$t^k e^{at}$	$\frac{k!}{(s-a)^{k+1}} \quad (k = 0, 1, 2, \dots \text{ . Note that } 0! = 1)$
$e^{at} \cos(bt)$	$\frac{s-a}{(s-a)^2 + b^2}$
$e^{at} \sin(bt)$	$\frac{b}{(s-a)^2 + b^2}$
$u(t-c)f(t-c)$	$e^{-cs}F(s)$