Some Laplace transforms

$f(t)$	$F(s)$
0	0
1	$\dfrac{1}{s}, \quad s > 0$
e^{at}	$\dfrac{1}{s-a}, \quad s > a$
$t^n, \quad n = 1,2,3,\ldots$	$\dfrac{n!}{s^{n+1}}, \quad s > 0$
t^p	$\dfrac{\Gamma(p+1)}{s^{p+1}}, \quad s > 0$
(where	$\Gamma(p+1) = \displaystyle\int_0^\infty e^{-x} x^p dx$)
$\sin(at)$	$\dfrac{a}{s^2 + a^2}, \quad s > 0$
$\cos(at)$	$\dfrac{s}{s^2 + a^2}, \quad s > 0$
$e^{at}\sin(bt)$	$\dfrac{b}{(s-a)^2 + b^2}, \quad s > a$
$e^{at}\cos(bt)$	$\dfrac{s-a}{(s-a)^2 + b^2}, \quad s > a$
$e^{ct}f(t)$	$F(s-c)$
$f'(t)$	$sF(s) - f(0)$
$f''(t)$	$s^2 F(s) - sf(0) - f'(0)$
$f^{(n)}(t)$	$s^n F(s) - s^{n-1} f(0) - \ldots - f^{(n-1)}(0)$
$u_c(t)f(t-c)$	$e^{-cs} F(s)$
$\delta(t-c)$	e^{-cs}
$\displaystyle\int_0^t f(t-\tau)g(\tau)d\tau$	$F(s)G(s)$