Short Table of Laplace Transforms

	$f(t) = \mathscr{L}^{-1}\{F(s)\}$	$F(s) = \mathscr{L}\{f(t)\}$
1.	1	$\dfrac{1}{s}$
2.	e^{at}	$\dfrac{1}{s-a}$
3.	$t^n,\ \ n = 1, 2, \ldots$	$\dfrac{n!}{s^{n+1}}$
4.	$\sin(at)$	$\dfrac{a}{s^2+a^2}$
5.	$\cos(at)$	$\dfrac{s}{s^2+a^2}$
6.	$\sinh(at)$	$\dfrac{a}{s^2-a^2}$
7.	$\cosh(at)$	$\dfrac{s}{s^2-a^2}$
8.	$e^{at}\sin(bt)$	$\dfrac{b}{(s-a)^2+b^2}$
9.	$e^{at}\cos(bt)$	$\dfrac{s-a}{(s-a)^2+b^2}$
10.	$t^n e^{at},\ \ n = 1, 2, \ldots$	$\dfrac{n!}{(s-a)^{n+1}}$
11.	$u_c(t)$	$\dfrac{e^{-cs}}{s}$
12.	$u_c(t)\, f(t-c)$	$e^{-cs}F(s)$
13.	$e^{ct}f(t)$	$F(s-c)$
14.	$\displaystyle\int_0^t f(t-\tau)\, g(\tau)\, d\tau$	$F(s)\, G(s)$
15.	$\delta(t-c)$	e^{-cs}
16.	$f^{(n)}(t)$	$s^nF(s) - s^{(n-1)}f(0) - \cdots - f^{(n-1)}(0)$