

$$f(t) = \mathcal{L}^{-1}\{F(s)\}$$

$$F(s) = \mathcal{L}\{f(t)\}$$

1.	1	$\frac{1}{s}, \quad s > 0$
2.	$e^{at}$	$\frac{1}{s-a}, \quad s > a$
3.	$t^n, \quad n = \text{positive integer}$	$\frac{n!}{s^{n+1}}, \quad s > 0$
4.	$t^p, \quad p > -1$	$\frac{\Gamma(p+1)}{s^{p+1}}, \quad s > 0$
5.	$\sin at$	$\frac{a}{s^2 + a^2}, \quad s > 0$
6.	$\cos at$	$\frac{s}{s^2 + a^2}, \quad s > 0$
7.	$\sinh at$	$\frac{a}{s^2 - a^2}, \quad s >  a $
8.	$\cosh at$	$\frac{s}{s^2 - a^2}, \quad s >  a $
9.	$e^{at} \sin bt$	$\frac{b}{(s-a)^2 + b^2}, \quad s > a$
10.	$e^{at} \cos bt$	$\frac{s-a}{(s-a)^2 + b^2}, \quad s > a$
11.	$t^n e^{at}, \quad n = \text{positive integer}$	$\frac{n!}{(s-a)^{n+1}}, \quad s > a$
12.	$u_c(t)$	$\frac{e^{-cs}}{s}, \quad s > 0$
13.	$u_c(t)f(t-c)$	$e^{-cs}F(s)$
14.	$e^{ct}f(t)$	$F(s-c)$
15.	$\int_0^t f(t-\tau)g(\tau) d\tau$	$F(s)G(s)$
16.	$\delta(t-c)$	$e^{-cs}$
17.	$f^{(n)}(t)$	$s^n F(s) - s^{n-1}f(0) - \dots - f^{(n-1)}(0)$
18.	$t^n f(t)$	$(-1)^n F^{(n)}(s)$