

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