$f(t)$	$F(s) = \mathcal{L}\{f(t)\}(s)$	$f(t)$	$F(s) = \mathcal{L}\{f(t)\}(s)$
1. $f(at)$	$\frac{1}{a}F\left(\frac{s}{a}\right)$	20. $\frac{1}{\sqrt{t}}$	$\frac{\sqrt{\pi}}{\sqrt{s}}$
2. $e^{at}f(t)$	$F(s-a)$	21. $\sqrt{t}$	$\frac{\sqrt{\pi}}{2s^{3/2}}$
3. $f'(t)$	$sF(s) - f(0)$	22. $t^{n-(1/2)}$, $n = 1, 2, \ldots$	$\frac{1 \cdot 3 \cdot 5 \cdots (2n+1)\sqrt{\pi}}{2^n s^{n+(1/2)}}$
4. $f^{(n)}(t)$	$s^nF(s) - s^{n-1}f(0) - \cdots - f^{(n-1)}(0)$	23. t^r, $r > -1$	$\frac{\Gamma(r+1)}{s^{r+1}}$
5. $t^nf(t)$	$(-1)^nF^{(n)}(s)$	24. $\sin(bt)$	$\frac{b}{s^2+b^2}$
6. $\frac{1}{t}f(t)$	$\int_s^\infty F(u)\,du$	25. $\cos(bt)$	$\frac{s}{s^2+b^2}$
7. $\int_0^t f(v)dv$	$\frac{F(s)}{s}$	26. $e^{at}\sin(bt)$	$\frac{b}{(s-a)^2+b^2}$
8. $(f * g)(t)$	$F(s)G(s)$	27. $e^{at}\cos(bt)$	$\frac{s-a}{(s-a)^2+b^2}$
9. $f(t+T) = f(t)$	$\frac{\int_0^T e^{-st}f(t)\,dt}{1-e^{-sT}}$	28. $\sinh(bt)$	$\frac{b}{s^2-b^2}$
10. $f(t-a)u(t-a)$, $a \geq 0$	$e^{-as}F(s)$	29. $\cosh(bt)$	$\frac{s}{s^2-b^2}$
11. $g(t)u(t-a)$, $a \geq 0$	$e^{-as}\mathcal{L}\{g(t+a)\}(s)$	30. $\sin(bt) - bt\cos(bt)$	$\frac{2b^3}{(s^2+b^2)^2}$
12. $u(t-a)$, $a \geq 0$	$\frac{e^{-as}}{s}$	31. $t\sin(bt)$	$\frac{2bs}{(s^2+b^2)^2}$
13. $\prod_{a,b}(t)$, $0 < a < b$	$\frac{e^{-as}-e^{-bs}}{s}$	32. $\sin(bt) + bt\cos(bt)$	$\frac{2bs^2}{(s^2+b^2)^2}$
14. $\delta(t-a)$, $a \geq 0$	e^{-as}	33. $t\cos(bt)$	$\frac{s^2-b^2}{(s^2+b^2)^2}$
15. e^{at}	$\frac{1}{s-a}$	34. $\sin(bt)\cosh(bt) - \cos(bt)\sinh(bt)$	$\frac{4b^3}{s^4+4b^4}$
16. t^n, $n = 1, 2, 3, \ldots$	$\frac{n!}{s^{n+1}}$	35. $\sin(bt)\sinh(bt)$	$\frac{2b^2s}{s^4+4b^4}$
17. $e^{at}t^n$, $n = 1, 2, 3, \ldots$	$\frac{n!}{(s-a)^{n+1}}$	36. $\sinh(bt) - \sin(bt)$	$\frac{2b^3}{s^4-b^4}$
18. $e^{at} - e^{bt}$	$\frac{a-b}{(s-a)(s-b)}$	37. $\cosh(bt) - \cos(bt)$	$\frac{2b^2s}{s^4-b^4}$
19. $ae^{at} - be^{bt}$	$\frac{(a-b)s}{(s-a)(s-b)}$	38. $J_v(bt)$, $v > -1$	$\frac{\left(\sqrt{s^2+b^2}-s\right)^v}{b^v\sqrt{s^2+b^2}}$