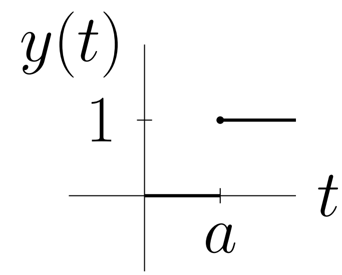
Integral definition of $\mathcal{L}\{f(t)\}$	$\mathcal{L}\{1\}$	$\mathcal{L}\{t\}$
$\mathcal{L}\{t^n\}, \quad n = 1, 2, 3, \ldots$	$\mathcal{L}\{e^{at}\}$	$\mathcal{L}\{\sin kt\}$
$\mathcal{L}\{\cos kt\}$	$\mathcal{L}\{\sinh kt\}$	$\mathcal{L}\{\cosh kt\}$

$\dfrac{1}{s^2}$	$\dfrac{1}{s}$	$\displaystyle\int_0^\infty e^{-st} f(t)\, dt$
$\dfrac{k}{s^2+k^2}$	$\dfrac{1}{s-a}$	$\dfrac{n!}{s^{n+1}}, \quad n = 1, 2, 3, \ldots$
$\dfrac{s}{s^2-k^2}$	$\dfrac{k}{s^2-k^2}$	$\dfrac{s}{s^2+k^2}$

$\mathcal{L}^{-1}\left\{\frac{1}{s}\right\}$	$\mathcal{L}^{-1}\left\{\frac{1}{s^2}\right\}$	$\mathcal{L}^{-1}\left\{\frac{n!}{s^{n+1}}\right\}$, $n = 1, 2, 3, \ldots$
$\mathcal{L}^{-1}\left\{\frac{1}{s-a}\right\}$	$\mathcal{L}^{-1}\left\{\frac{k}{s^2+k^2}\right\}$	$\mathcal{L}^{-1}\left\{\frac{s}{s^2+k^2}\right\}$
$\mathcal{L}^{-1}\left\{\frac{k}{s^2-k^2}\right\}$	$\mathcal{L}^{-1}\left\{\frac{s}{s^2-k^2}\right\}$	$\mathcal{L}\{f'(t)\}$

$t^n, n = 1, 2, 3, \ldots$	t	1
$\cos kt$	$\sin kt$	e^{at}
$s\,F(s) - f(0)$	$\cosh kt$	$\sinh kt$

$\mathcal{L}\{f''(t)\}$	$\mathcal{L}\{e^{at}f(t)\}$	Piecewise definition of $\mathscr{U}(t-a)$
Graph of $\mathscr{U}(t-a)$	$f(t) = \begin{cases} 0, & 0 \leq t < a, \\ g(t), & a \leq t < b, \\ 0, & b \leq t. \end{cases}$	$\mathcal{L}\{\mathscr{U}(t-a)\}$
$\mathcal{L}\left\{f(t-a)\,\mathscr{U}(t-a)\right\}$	$\mathcal{L}\left\{g(t)\,\mathscr{U}(t-a)\right\}$	Integral definition of $f * g$

$\mathscr{U}(t-a) = \begin{cases} 0, & 0 \le t < a \\ 1, & t \ge a. \end{cases}$	$F(s-a)$	$s^2F(s) - s\,f(0) - f'(0)$
$\dfrac{e^{-as}}{s}$	$f(t) = g(t)\Big[\mathscr{U}(t-a) - \mathscr{U}(t-b)\Big]$	
$\displaystyle\int_0^t f(\tau)\,g(t-\tau)\,d\tau$	$e^{-as}\mathcal{L}\left\{g(t+a)\right\}$	$e^{-as}F(s)$

$\mathcal{L}\{f * g\}$		

		$F(s)\,G(s)$