S-shift formulas	$\mathscr{L}\left\{e^{at}t\right\}$	$\mathscr{L}\left\{e^{at}t^2\right\}$
$\mathscr{L}\left\{e^{at}t^3\right\}$	$\mathscr{L}\left\{e^{at}t^n\right\}$	$\mathscr{L}\left\{e^{at}\sin\left(kt\right)\right\}$
$\mathscr{L}\left\{e^{at}\cos\left(kt\right)\right\}$	$\mathscr{L}\left\{e^{at}\sinh\left(kt\right)\right\}$	$\mathscr{L}\left\{e^{at}\cosh\left(kt\right)\right\}$

$\dfrac{2}{(s-a)^3}$	$\dfrac{1}{(s-a)^2}$	Color code Black: original transform Blue: s-shift
$\dfrac{k}{(s-a)^2+k^2}$	$\dfrac{n!}{(s-a)^{n+1}}$	$\dfrac{6}{(s-a)^4}$
$\dfrac{s-a}{(s-a)^2-k^2}$	$\dfrac{k}{(s-a)^2-k^2}$	$\dfrac{s-a}{(s-a)^2+k^2}$

$\mathscr{L}^{-1}\left\{\dfrac{1}{(s-a)^2}\right\}$	$\mathscr{L}^{-1}\left\{\dfrac{2}{(s-a)^3}\right\}$	$\mathscr{L}^{-1}\left\{\dfrac{6}{(s-a)^4}\right\}$
$\mathscr{L}^{-1}\left\{\dfrac{n!}{(s-a)^{n+1}}\right\}$	$\mathscr{L}^{-1}\left\{\dfrac{k}{(s-a)^2+k^2}\right\}$	$\mathscr{L}^{-1}\left\{\dfrac{s-a}{(s-a)^2+k^2}\right\}$
$\mathscr{L}^{-1}\left\{\dfrac{k}{(s-a)^2-k^2}\right\}$	$\mathscr{L}^{-1}\left\{\dfrac{s-a}{(s-a)^2-k^2}\right\}$	

$e^{at}t^3$	$e^{at}t^2$	$e^{at}t$
$e^{at}\cos(kt)$	$e^{at}\sin(kt)$	$e^{at}t^n$
	$e^{at}\cosh(kt)$	$e^{at}\sinh(kt)$