

$\frac{(s+\alpha)}{[(s+a)(s+b)]}$	$\frac{1}{(b-a)}[(\alpha-a)e^{-at} - (\alpha-b)e^{-bt}]$
$\frac{1}{[(s+a)(s+b)(s+c)]}$	$\frac{e^{-at}}{[(b-a)(c-a)]} + \frac{e^{-at}}{[(c-b)(a-b)]} + \frac{e^{-ct}}{[(a-c)(b-c)]}$
$\frac{(s+\alpha)}{[(s+a)(s+b)(s+c)]}$	$\frac{(\alpha-a)}{[(b-a)(c-a)]}e^{-at} + \frac{(\alpha-b)}{[(c-b)(a-b)]}e^{-bt} + \frac{(\alpha-c)}{[(a-c)(b-c)]}e^{-ct}$
$\frac{\omega}{(s^2 + \omega^2)}$	<b>sin</b> $\omega t$
$\frac{s}{(s^2 + \omega^2)}$	<b>cos</b> $\omega t$
$\frac{(s+\alpha)}{(s^2 + \omega^2)}$	$\frac{\sqrt{(\alpha^2 + \omega^2)}}{\omega} \mathbf{sin}(\omega t + \phi); \phi = \mathbf{tan}^{-1} \frac{\omega}{\alpha}$
$\frac{[s \mathbf{sin} \theta + \omega \mathbf{cos} \theta]}{(s^2 + \omega^2)}$	<b>sin</b> $(\omega t + \theta)$
$\frac{1}{[s(s^2 + \omega^2)]}$	$\frac{1}{\omega^2}(1 - \mathbf{cos} \omega t)$
$\frac{(s+\alpha)}{[s(s^2 + \omega^2)]}$	$\frac{\alpha}{\omega^2} - \frac{\sqrt{(\alpha^2 + \omega^2)}}{\omega^2} \mathbf{cos}(\omega t + \phi); \phi = \mathbf{tan}^{-1} \frac{\omega}{\alpha}$
$\frac{1}{[(s+a)(s^2 + \omega^2)]}$	$\frac{e^{-at}}{(a^2 + \omega^2)} + \frac{1}{[\omega \sqrt{(\alpha^2 + \omega^2)}]} \mathbf{sin}(\omega t - \phi); \phi = \mathbf{tan}^{-1} \frac{\omega}{\alpha}$
$\frac{1}{[(s+a)^2 + b^2]}$	$\frac{1}{b} e^{-at} \mathbf{sin} bt$
$\frac{1}{[s^2 + 2\xi\omega_n s + \omega_n^2]}$	$\frac{1}{[\omega_n \sqrt{(1-\xi^2)}]} e^{(-\xi\omega t)} \mathbf{sin} \omega_n \sqrt{(1-\xi^2)t}$
$\frac{(s+a)}{[(s+a)^2 + b^2]}$	$e^{-at} \mathbf{cos} bt$
$\frac{(s+\alpha)}{[(s+a)^2 + b^2]}$	$\frac{\sqrt{((\alpha-a)^2 + b^2)}}{b} e^{-at} \mathbf{sin}(bt + \Phi); \phi = \mathbf{tan}^{-1} \frac{b}{(\alpha-a)}$