

$\frac{1}{[s[(s+a)^2+b^2]]}$	$\frac{1}{(a^2+b^2)} + \frac{1}{(b\sqrt{(a^2+b^2)})} e^{-at} \cdot \sin(bt-\phi), \phi = \tan^{-1} \frac{b}{-a}$
$\frac{1}{[s(s^2+2\xi\omega_n s+\omega_n^2)]}$	$\frac{1}{\omega_n^2} - \frac{1}{(\omega_n^2\sqrt{(1-\xi^2)})} e^{(-\xi\omega_n t)} \cdot \sin(\omega_n\sqrt{(1-\xi^2)t+\phi}); \phi = \cos^{-1}\xi$
$\frac{(s+\alpha)}{[s[(s+a)^2+b^2]]}$	$\frac{\alpha}{(a^2+b^2)} + \frac{1}{b} \sqrt{\frac{[(\alpha-a)^2+b^2]}{(a^2+b^2)}} \cdot e^{-at} \sin(bt+\phi); \phi = \tan^{-1} \frac{b}{(\alpha-a)} - \tan^{-1} \frac{b}{-a}$
$\frac{1}{[[s+c](s+a)^2+b^2]}$	$\frac{e^{-ct}}{[(c-a)^2+b^2]} + \frac{[e^{-at} \sin(bt-\phi)]}{[b\sqrt{((c-a)^2+b^2)}]} ; \phi = \tan^{-1} \frac{b}{(c-a)}$
$\frac{1}{[s^2(s+a)]}$	$\frac{1}{a^2}(at-1+e^{-at})$
$\frac{1}{[s(s+a^2)]}$	$\frac{1}{a^2}(1-e^{-at}-ate^{-at})$
$\frac{1}{[s(s+c)[(s+a)^2+b^2]}$	$\frac{1}{[c(a^2+b^2)]} - \frac{e^{-ct}}{[c[(c-a)^2+b^2]]} + \frac{(e^{-at} \sin(bt-\phi))}{[b\sqrt{(a^2+b^2)}\sqrt{((c-a)^2+b^2)}]}$ $\phi = \tan^{-1} \frac{b}{-a} + \tan^{-1} \frac{b}{(c-a)}$
$\frac{(s+\alpha)}{[s(s+c)[(s+a)^2+b^2]}$	$\frac{\alpha}{[c(a^2+b^2)]} - \frac{[(c-\alpha)e^{-ct}]}{[c[(c-a)^2+b^2]]} + \frac{\sqrt{((\alpha-a)^2+b^2)}}{[b\sqrt{(a^2+b^2)}\sqrt{((c-a)^2+b^2)}]}$ $\cdot e^{-at} \sin(bt+\phi); \phi = \tan^{-1} \frac{b}{(\alpha-a)} - \tan^{-1} \frac{b}{-a} - \tan^{-1} \frac{b}{(c-a)}$