

Property	Sequence	$z$ -Transform	ROC
	$g[n]$	$G(z)$	$\mathcal{R}_g$
	$h[n]$	$H(z)$	$\mathcal{R}_h$
Conjugation	$g^*[n]$	$G^*(z^*)$	$\mathcal{R}_g$
Time-reversal	$g[-n]$	$G(1/z)$	$1/\mathcal{R}_g$
Linearity	$\alpha g[n] + \beta h[n]$	$\alpha G(z) + \beta H(z)$	Includes $\mathcal{R}_g \cap \mathcal{R}_h$
Time-shifting	$g[n - n_o]$	$z^{-n_o} G(z)$	$\mathcal{R}_g$ , except possibly the point $z = 0$ or $\infty$
Multiplication by an exponential sequence	$\alpha^n g[n]$	$G(z/\alpha)$	$ \alpha  \mathcal{R}_g$
Differentiation of $G(z)$	$ng[n]$	$-z \frac{dG(z)}{dz}$	$\mathcal{R}_g$ , except possibly the point $z = 0$ or $\infty$
Convolution	$g[n] \circledast h[n]$	$G(z)H(z)$	Includes $\mathcal{R}_g \cap \mathcal{R}_h$
Modulation	$g[n]h[n]$	$\frac{1}{2\pi j} \oint_C G(v)H(z/v)v^{-1} dv$	Includes $\mathcal{R}_g \mathcal{R}_h$
Parseval's relation	$\sum_{n=-\infty}^{\infty} g[n]h^*[n] = \frac{1}{2\pi j} \oint_C G(v)H^*(1/v^*)v^{-1} dv$		
<p>Note: If <math>\mathcal{R}_g</math> denotes the region <math>R_{g-} &lt;  z  &lt; R_{g+}</math> and <math>\mathcal{R}_h</math> denotes the region <math>R_{h-} &lt;  z  &lt; R_{h+}</math>, then <math>1/\mathcal{R}_g</math> denotes the region <math>1/R_{g+} &lt;  z  &lt; 1/R_{g-}</math> and <math>\mathcal{R}_g \mathcal{R}_h</math> denotes the region <math>R_{g-} R_{h-} &lt;  z  &lt; R_{g+} R_{h+}</math>.</p>			