

Segnale Continuo	Trasformata di Laplace	Sequenza	Z-Trasformata	Segnale campionato	Z-Trasformata
$\delta(t)$	1	$\delta(k)$	1	$\delta(kT)$	1
$1(t)$	$\frac{1}{s}$	$1(k)$	$\frac{z}{z-1}$	$1(kT)$	$\frac{z}{z-1}$
t	$\frac{1}{s^2}$	k	$\frac{z}{(z-1)^2}$	kT	$\frac{Tz}{(z-1)^2}$
t^2	$\frac{2}{s^3}$	k^2	$\frac{z(z+1)}{(z-1)^3}$	$(kT)^2$	$\frac{T^2 z(z+1)}{(z-1)^3}$
t^3	$\frac{6}{s^4}$	k^3	$\frac{z(z^2+4z+1)}{(z-1)^4}$	$(kT)^3$	$\frac{T^3 z(z^2+4z+1)}{(z-1)^4}$
$e^{-\alpha t}$	$\frac{1}{s+\alpha}$	a^k	$\frac{z}{z-a}$	$e^{-\alpha k T}$	$\frac{z}{z-e^{-\alpha T}}$
$t e^{-\alpha t}$	$\frac{1}{(s+\alpha)^2}$	$k a^k$	$\frac{a z}{(z-a)^2}$	$k T e^{-\alpha k T}$	$T \frac{e^{-\alpha T} z}{(z-e^{-\alpha T})^2}$
$\sin(\omega_n t)$	$\frac{\omega_n}{s^2 + \omega_n^2}$	$\sin(\omega_n k)$	$\frac{\sin(\omega_n) z}{z^2 - 2 \cos(\omega_n) z + 1}$	$\sin(\omega_n k T)$	$\frac{\sin(T \omega_n) z}{z^2 - 2 \cos(T \omega_n) z + 1}$
$\cos(\omega_n t)$	$\frac{s}{s^2 + \omega_n^2}$	$\cos(\omega_n k)$	$\frac{z[z - \cos(\omega_n)]}{z^2 - 2 \cos(\omega_n) z + 1}$	$\cos(\omega_n k T)$	$\frac{z[z - \cos(T \omega_n)]}{z^2 - 2 \cos(T \omega_n) z + 1}$
$e^{-\zeta \omega_n t} \sin(\omega_d t)$	$\frac{\omega_d}{(s + \zeta \omega_n)^2 + \omega_d^2}$	$e^{-\zeta \omega_n k} \sin(\omega_d k)$	$\frac{e^{-\zeta \omega_n} \sin(\omega_d) z}{z^2 - 2 e^{-\zeta \omega_n} \cos(\omega_d) z + e^{-2 \zeta \omega_n}}$	$e^{-\zeta \omega_n k T} \sin(\omega_d k T)$	$\frac{e^{-\zeta T \omega_n} \sin(T \omega_d) z}{z^2 - 2 e^{-\zeta T \omega_n} \cos(T \omega_d) z + e^{-2 \zeta T \omega_n}}$
$e^{-\zeta \omega_n t} \cos(\omega_d t)$	$\frac{s + \zeta \omega_n}{(s + \zeta \omega_n)^2 + \omega_d^2}$	$e^{-\zeta \omega_n k} \cos(\omega_d k)$	$\frac{z[z - e^{-\zeta \omega_n} \cos(\omega_d)]}{z^2 - 2 e^{-\zeta \omega_n} \cos(\omega_d) z + e^{-2 \zeta \omega_n}}$	$e^{-\zeta \omega_n k T} \cos(\omega_d k T)$	$\frac{z[z - e^{-\zeta T \omega_n} \cos(T \omega_d)]}{z^2 - 2 e^{-\zeta T \omega_n} \cos(T \omega_d) z + e^{-2 \zeta T \omega_n}}$



