

## z-transzformáltak

$x_n$	$\mathcal{Z}(x_n)$
1	$\frac{z}{z - 1}$
$a^n$	$\frac{z}{z - a}$
$n$	$\frac{z}{(z - 1)^2}$
$n(n - 1) \cdots (n - k + 1)$	$\frac{k!z}{(z - 1)^{k+1}}$
$\sin an$	$\frac{z \sin a}{z^2 - 2z \cos a + 1}$
$\cos an$	$\frac{z^2 - z \cos a}{z^2 - 2z \cos a + 1}$
$\operatorname{sh} an$	$\frac{z \operatorname{sh} a}{z^2 - 2z \operatorname{ch} a + 1}$
$\operatorname{ch} an$	$\frac{z^2 - z \operatorname{ch} a}{z^2 - 2z \operatorname{ch} a + 1}$
$\delta_n^{(k)} = \begin{cases} 1, & n = k \\ 0, & n \neq k \end{cases}$	$\frac{1}{z^k}$
$u_n^{(k)} = \begin{cases} 0, & n < k \\ 1, & n \geq k \end{cases}$	$\frac{z^{1-k}}{z-1}$
$ny_n$	$-zY'(z)$
$n(n + 1) \cdots (n + k - 1)y_n$	$(-1)^k z^k Y^{(k)}(z)$
$y_{n+1}$	$zY(z) - zy_0$
$y_{n+k}$	$z^k Y(z) - z^k y_0 - z^{k-1} y_1 - \cdots - z y_{k-1}$
$a^n y_n$	$Y\left(\frac{z}{a}\right)$
$u_n^{(k)} y_{n-k}$	$\frac{Y(z)}{z^k}$
$u_n * v_n$	$U(z)V(z)$

(ahol  $Y(z) = \mathcal{Z}(y_n)$ ,  $U(z) = \mathcal{Z}(u_n)$  és  $V(z) = \mathcal{Z}(v_n)$ )