$$Z\{a^k\} = \frac{z}{z-a}$$

$$Z\{1\} = \frac{z}{z-1}$$

$$Z\{(-1)^n\} = \frac{z}{z+1}$$

$$Z\{a\} = \frac{az}{z-1}$$

$$Z\{k^p\} = -z\frac{d}{dz} Z\{k^{p-1}\}$$

$$Z\{k f(k)\} = -z\frac{d}{dz} Z\{f(k)\}$$

$$Z\{a^{-k} f(k)\} = Z\{f(ak)\}$$

$$Z\{k^p f(k)\} = \left(-z\frac{1}{dz}\right)^p Z\{f(k)\}$$

$$Z\{k\} = \frac{z}{(z-1)^2}$$

$$Z\{k^2\} = \frac{z^2+z}{(z-1)^3}$$

$$Z\{a^k \cdot k\} = \frac{az}{(z-a)^2}$$

$$Z\{a^k k^2\} = \frac{az^2+a^2z}{(z-a)^3}$$

$$Z\{\cos bk\} = \frac{z(z-\cos b)}{z^2-2z\cos b+1}$$

$$Z\{\operatorname{sen} bk\} = \frac{z \operatorname{sen} b}{z^2-2z\cos b+1}$$