

The Z-transform

Reference Book:

Difference Equation: An Introduction with Applications- W.G. Kelley, A.C. Peterson(2nd Edition)

Formula Table: Page-107- Table-3.1

<u>Page number</u>	<u>Exercise</u>
120	3.110-a, d(using derivative formula given in 3.114), e,f(using definition) <u>For Practice:</u> $y_k = 2^k, \left(\frac{-1}{2}\right)^k, \delta_k(2), \delta_k(-3), u_k(3), u_k(5), k^2.$
121	3.113 – a, b, c, f, g
122	3.119 , 3.120 , 3.121 .

Page -100: Convolution Theorem:

Question: Using Convolution Theorem Find inverse Z transform of the following functions:-

1. $Y(z) = \frac{z^2}{(z-1)(z+2)}$

2. $Y(z) = \frac{z^2}{(z-2)(z-3)}$

3. $Y(z) = \frac{z^{-1}}{(z-1)}$