ECE 343 - Homework #20

Difference Equations and Discrete-Convolution - Summer 2018

Use discrete convolution to find the result of the following. Spread-sheets are recommended but any method is OK.

1) $(2x^2 + 3x + 4) \cdot (7x^3 + 8x^2 + 9x + 10)$

[2 3 4] ** [7 8 9 10]

2)   z(k) = x(k) ** y(k)

k	<0	0	1	2	3	4	5	6	7	8	9
x(k)	0	1	1	1	1	0	0	0	0	0	0
y(k)	0	0	1	2	3	4	0	0	0	0	0

3)   z(k) = x(k) ** y(k)

k	<0	0	1	2	3	4	5	6	7	8	9
x(k)	0	1	1	1	1	0	0	0	0	0	0
y(k)	0	0	0	1	1	1	1	0	0	0	0