

Assignment#01

$$x[k] = [4 \quad -2 \quad 3], h[k] = [2 \quad 4 \quad -1], \text{ Find } y[k] = ?$$

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Solution:-

K	-4	-3	-2	-1	0	1	2	3	4
H[k]			2	4	-1				
X[k]				4	-2	3			
H[-k]					-1	4	2		
H[1-k]						-1	4	2	
H[2-k]							-1	4	2
H[-1-k]		2	4	-1					
H[-2-k]	2	4	-1						

From Positive Side

$$Y[0] = (-1 * -2) + (3 * 4) = 14$$

$$Y[1] = (-1 * 3) = -3$$

$$Y[2] = \text{No Overlapping}$$

From Negative Side

$$Y[0] = (4 * -1) = -4$$

$$Y[1] = \text{No Overlapping}$$

$$Y[n] = \{-4, 14, 3\}$$

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Assignment#1