

LAB TASK # 04

Prove the convolution property of DTFT for the following two different sets of sequences

1. Length of $x_1 = 8$; $x_1[n] = (1/2)^n$ for $0 \leq n \leq 7$

Length of $x_2 = 4$; $x_2[n] = [0.25 \ 0.25 \ 0.25 \ 0.25]$

2. Length of $x_1 = 16$; $x_1[n] = (3/4)^n$ for $0 \leq n \leq 15$

Length of $x_2 = 8$; $x_2[n] = [1 \ 3 \ 5 \ 7 \ 9 \ 11 \ 13 \ 15]$