

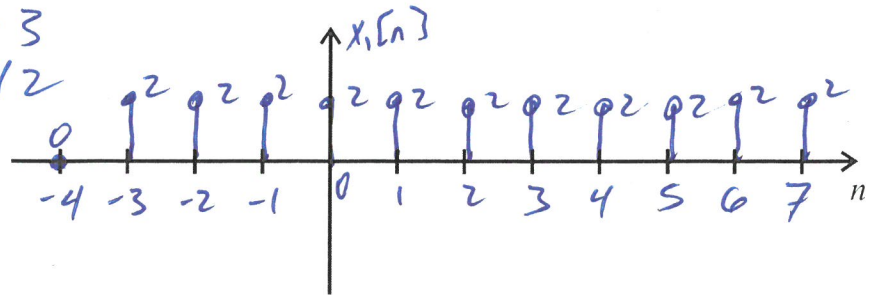
EE 313 Signals and Systems (Fall 2024) Quiz #1

Name Key A

Instructions: Open notes and text. Place answers in indicated spaces & show all work for credit.

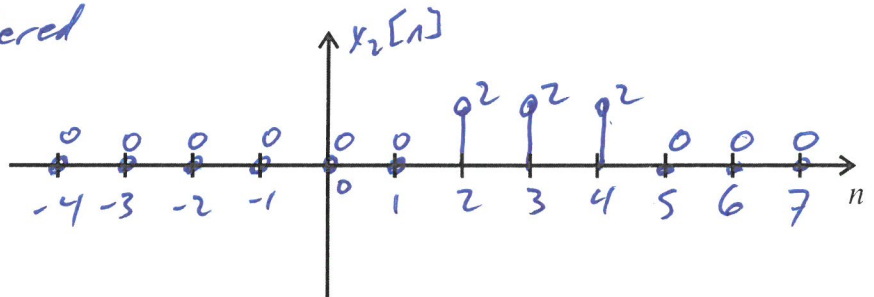
- a) Sketch and label a stem plot of the discrete-time (DT) function $x_1[n] = 2u[n + 3]$ for $-4 \leq n \leq 7$.

Left-shifted by 3
unit step weighted 2



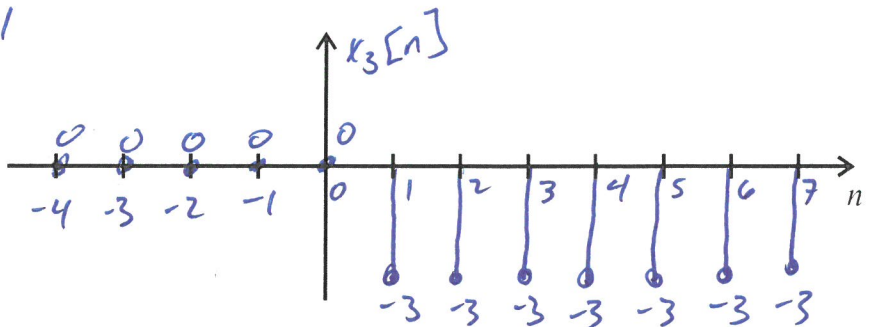
- b) Sketch and label a stem plot of the DT function $x_2[n] = 2p_3[n - 3]$ for $-4 \leq n \leq 7$.

pulse 3 wide centered
@ $n = 3$, weight 2



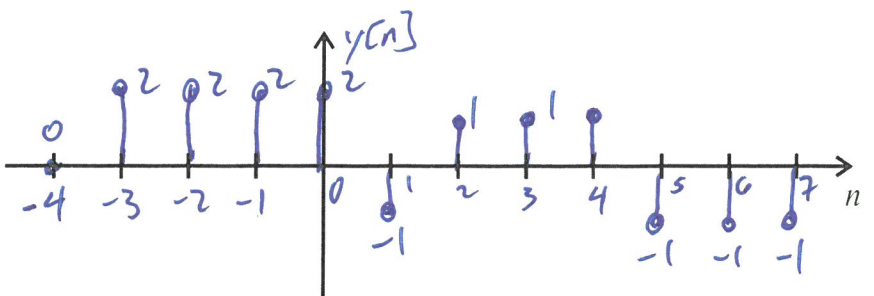
- c) Sketch and label a stem plot of the DT function $x_3[n] = -3u[n - 1]$ for $-4 \leq n \leq 7$.

rightshifted by 1
unit step,
weighted -3



- d) Sketch and label a stem plot of the DT function $y[n] = x_1[n] + x_2[n] + x_3[n]$ for $-4 \leq n \leq 7$.

add up
parts a)-c)



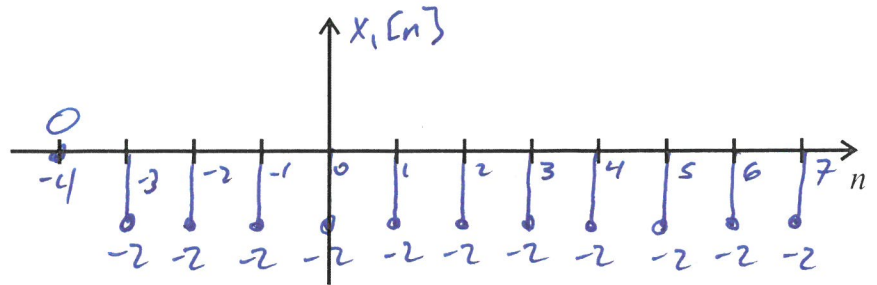
EE 313 Signals and Systems (Fall 2024) Quiz #1

Name Key B

Instructions: Open notes and text. Place answers in indicated spaces & show all work for credit.

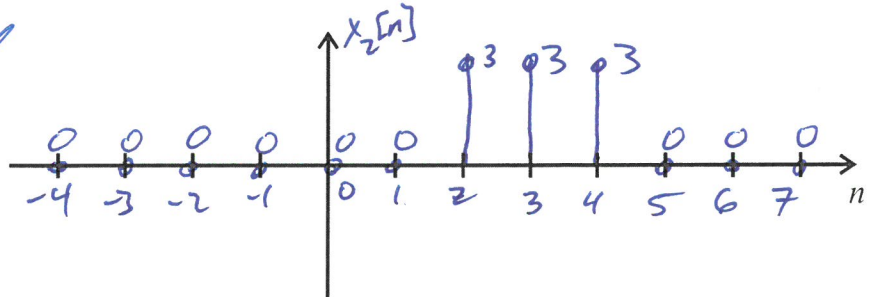
a) Sketch and label a stem plot of the discrete-time (DT) function $x_1[n] = -2u[n + 3]$ for $-4 \leq n \leq 7$.

Left-shifted by 3
unit step,
weighted by -2



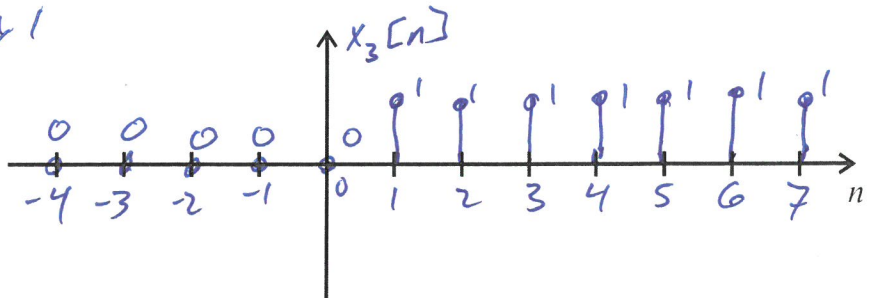
b) Sketch and label a stem plot of the DT function $x_2[n] = 3p_3[n - 3]$ for $-4 \leq n \leq 7$.

rect. pulse centered
@ $n = 3$, width 3,
weight 3



c) Sketch and label a stem plot of the DT function $x_3[n] = u[n - 1]$ for $-4 \leq n \leq 7$.

right-shifted by 1
unit step



d) Sketch and label a stem plot of the DT function $y[n] = x_1[n] + x_2[n] + x_3[n]$ for $-4 \leq n \leq 7$.

add up
parts a) - c)

