Quiz-1

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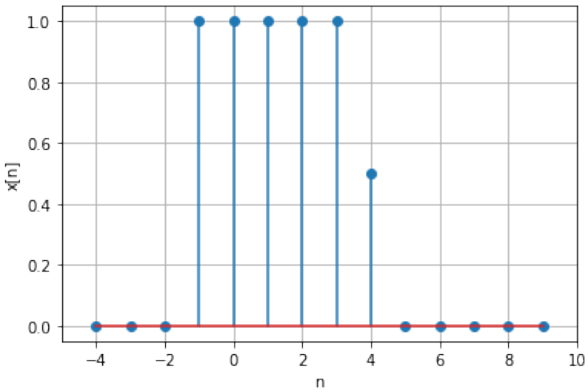
Download latex code from

https://github.com/ArunSiddardha/EE900/tree/main/Gate_assignment/Gate_Assignment.tex

QUIZ-1 2.29(A),2.29(B)

A discrete-time signal x[n] is shown in the below figure Sketch and label carefully each of the following signals



1) x[n-2]
2) x[4-n]

SOLUTION

1) Plot for time signal $x[n-2]$.

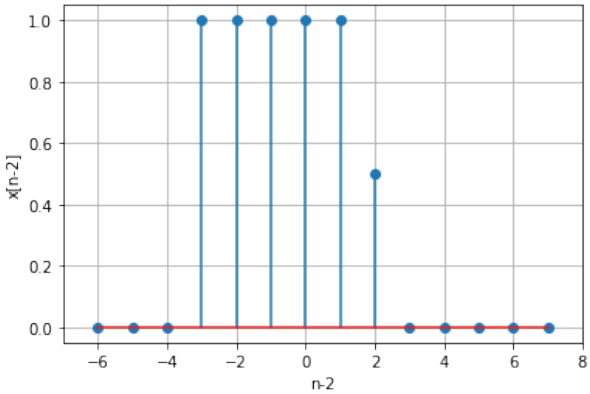


Fig. 1: plot for $x[n-2]$

$$x[n-2] = \begin{cases} 0, & n < -3 \\ 1, & -3 \le n < 2 \\ \frac{1}{2}, & n = 2 \\ 0, & n > 2 \end{cases} \tag{0.0.1}$$

2) Plot for time signal $x[4-n]$.

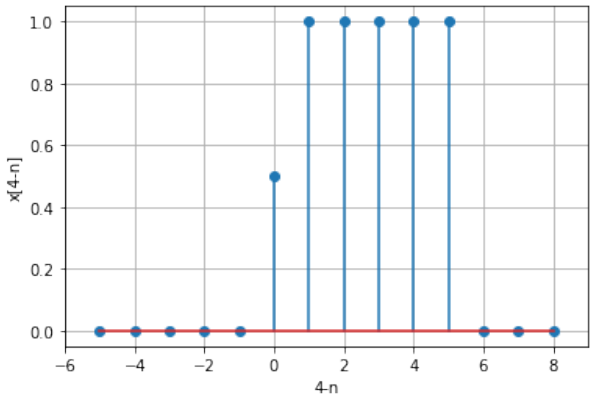


Fig. 2: plot for $x[4-n]$

$$x[4-n] = \begin{cases} 0, & n < 0 \\ \frac{1}{2}, & n = 0 \\ 1, & 0 < n < 5 \\ 0, & n > 5 \end{cases} \tag{0.0.2}$$