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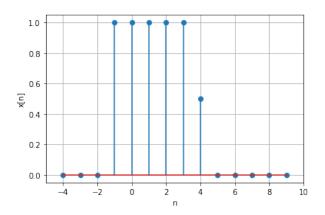
Quiz-1

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Download latex code from

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

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



ing signals

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

Solution

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

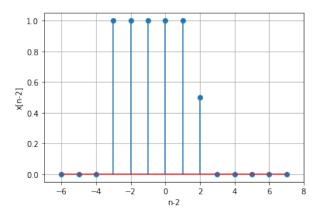


Fig. 1: plot for x[n-2]

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

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

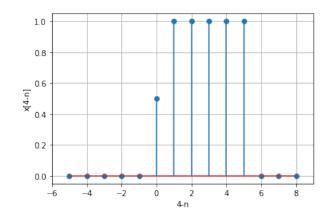


Fig. 2: plot for x[4-n]

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