

PROBLEM:

Suppose that an FIR filter is specified by the filter coefficients $\{b_k\} = \{0, 0, 2, 0, -1, 0, 2\}$.

- If the input signal to the filter is $x[n] = -7\delta[n - 3]$, determine the output, $y[n]$, and make a plot of the output signal.
- Write a short MATLAB program (just a few lines) that will solve this problem and make the plot.