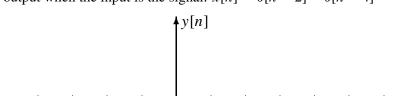
PROBLEM:

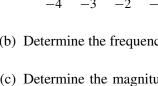
$$\{b_k\}$$
nse of an FIR filter is $h[n] = \delta[n] - 4\delta[n-1]$
at is the signal: $x[n] = \delta[n-2] - \delta[n-4]$

FIR FILTER

(a) If the impulse response of an FIR filter is $h[n] = \delta[n] - 4\delta[n-1] + \delta[n-2]$, make a plot of the output when the input is the signal: $x[n] = \delta[n-2] - \delta[n-4]$



x[n]



(b) Determine the frequency response, $\mathcal{H}(\hat{\omega})$, and give the answer as a simple formula:

y[*n*]

Plot zero values also

(c) Determine the magnitude of $\mathcal{H}(\hat{\omega})$ and present your answer as a a plot of the magnitude vs. frequency. Label important features. $|\mathcal{H}(\hat{\omega})|$

 π

 $\hat{\omega}$ (in rad)