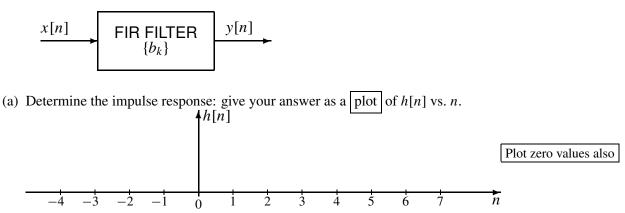
PROBLEM:

The following FIR filter is specified by the filter coefficients $\{b_k\} = \{0, 2, 3, 2\}$



(b) Determine the frequency response, $\mathcal{H}(\hat{\omega})$, and select one of the following as the correct answer: (A) $2\cos\hat{\omega} + 3e^{-j(2\hat{\omega}-\pi)}$ (B) $(4\cos\hat{\omega}+3)e^{-j\hat{\omega}}$ (C) $(3+4\cos\hat{\omega})e^{-j2\hat{\omega}}$ (D) $2\cos\hat{\omega}+3$

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

