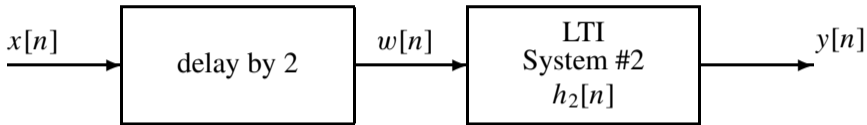


PROBLEM:

Consider the following cascade system:



- (a) Find and plot the magnitude of the frequency response of the first filter $|\mathcal{H}_1(\hat{\omega})|$.
- (b) If the overall impulse response of the cascade is

$$h_{eq}[n] = 2\delta[n - 4] - \delta[n - 5]$$

determine the impulse response of the second filter $h_2[n]$.