

EE 311
Second Order System In Class

January 24, 2018

Consider the following second order system:

$$H(z) = \frac{0.0750(z^2 + 2z + 1)}{z^2 - 1.2z + 0.5}$$

In all cases take the sample frequency to be $f_s = 11025$ Hz

A) Find the corresponding difference equation.

B) Use Matlab[®] to plot the first 25 terms of the impulse response of the system.

C) Use Matlab[®] to plot the frequency response (magnitude and phase) from 0 to $f_s/2$.

D) Use Matlab[®] to plot the pole/zero plot in z for the system.