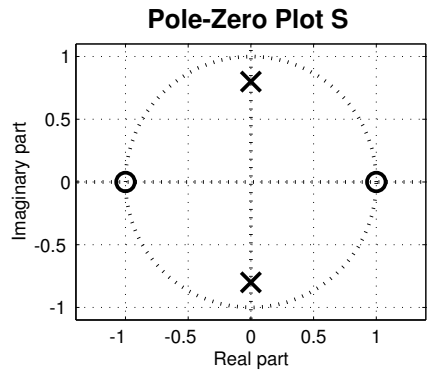
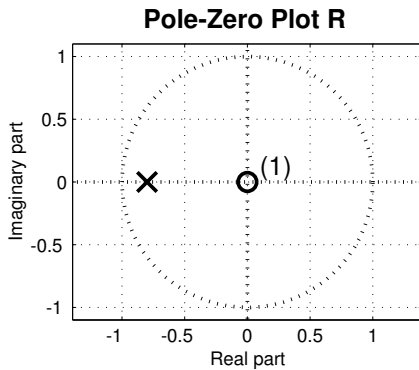
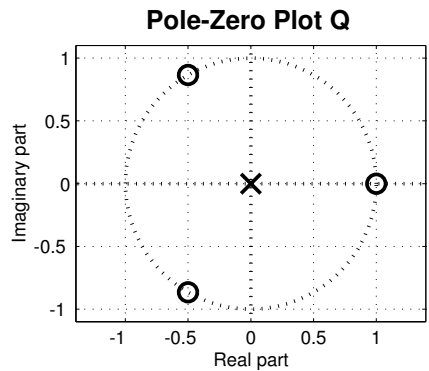
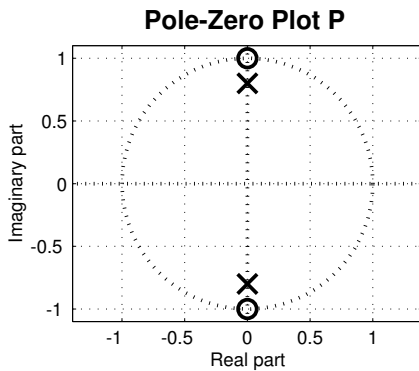


PROBLEM:

For each of the pole-zero plots (P, Q, R, S), determine which one of the following systems (specified by either an impulse response $h[n]$, a difference equation, or a MATLAB statement) matches the pole-zero plot. *There is only ONE correct match per plot.*

$$\mathcal{S}_1 : h[n] = \delta[n] + 0.8\delta[n - 1]$$

$$\mathcal{S}_5 : y = \text{filter}([1, 1, 1, 1], 1, x)$$

$$\mathcal{S}_2 : h[n] = (-0.8)^n u[n]$$

$$\mathcal{S}_6 : y[n] = -0.64y[n - 2] + x[n] - x[n - 2]$$

$$\mathcal{S}_3 : y[n] = -0.64y[n - 2] + x[n] + x[n - 2]$$

$$\mathcal{S}_7 : h[n] = (-0.8)^n u[n] - (0.8)^n u[n]$$

$$\mathcal{S}_4 : y[n] = x[n] - x[n - 3]$$

Mark your answer in the following table:

POLE-ZERO PLOT	SYSTEM ($\mathcal{S}_\#$)	POLE-ZERO PLOT	SYSTEM ($\mathcal{S}_\#$)
P		Q	
R		S	