

Prob. 1

Plots are shown in Figure 1. Plots are same as Figure 6.2.2 in text.

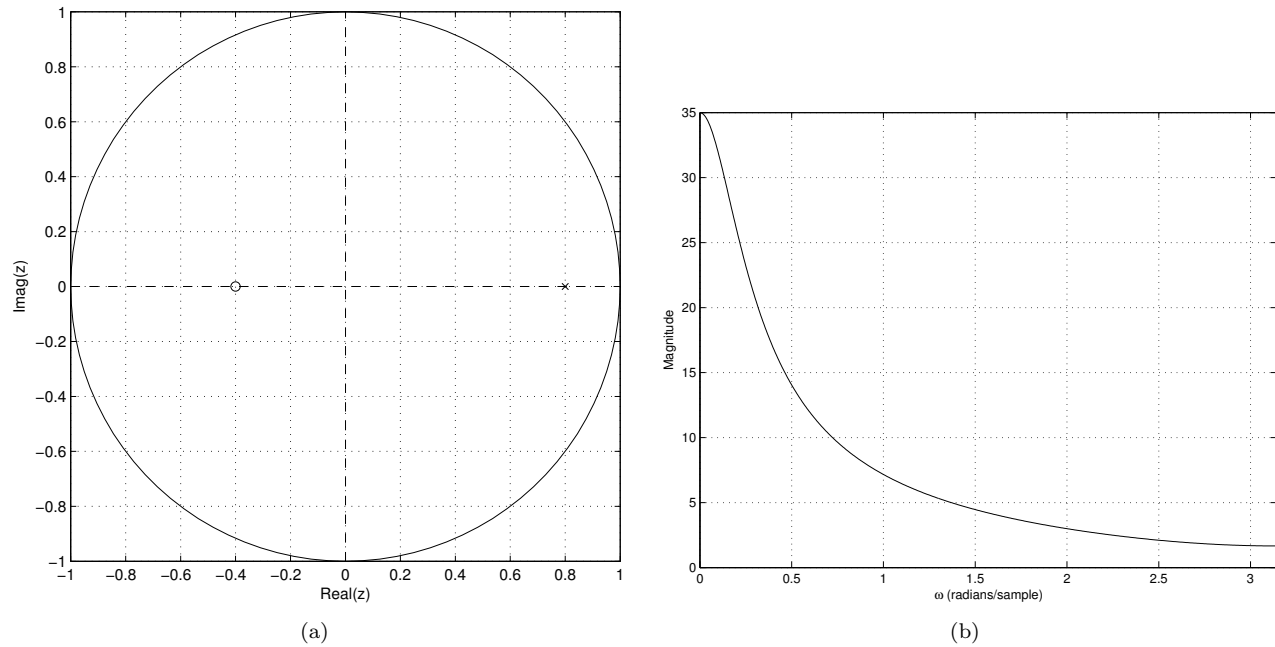


Figure 1: Plots for Prob. 1 (a) pole/zero pattern and (b) magnitude response.

Prob. 2

Plots are shown in Figure 2. Plots are same as Example 6.2.1 in text. Note that the unit-circle looks like an ellipse because the aspect ratio is not square.

Prob. 3

Plots are shown in Figure 3. Plots are same as Example 6.2.3 in text. Note that the simple sign change in the feedback coefficient turns the bandstop filter into a bandpass filter.

Prob. 4

Plots are shown in Figure 4. Plots are same as Figure 6.4.5 and Figure 6.4.6 in text

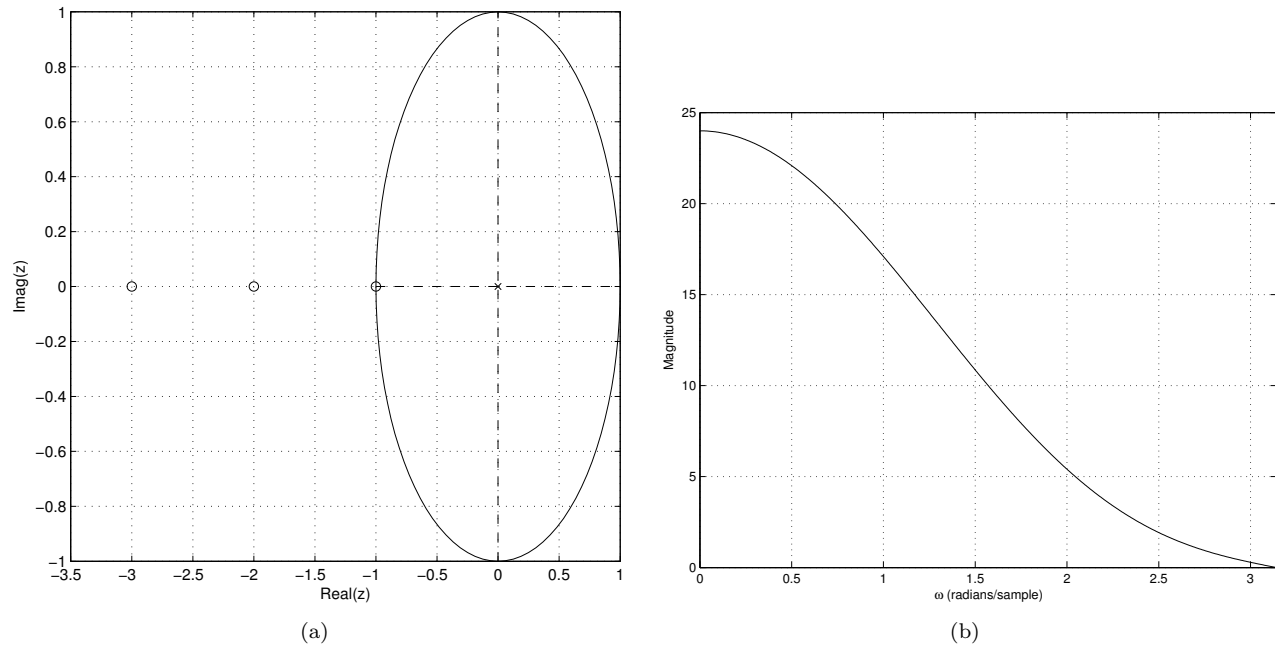
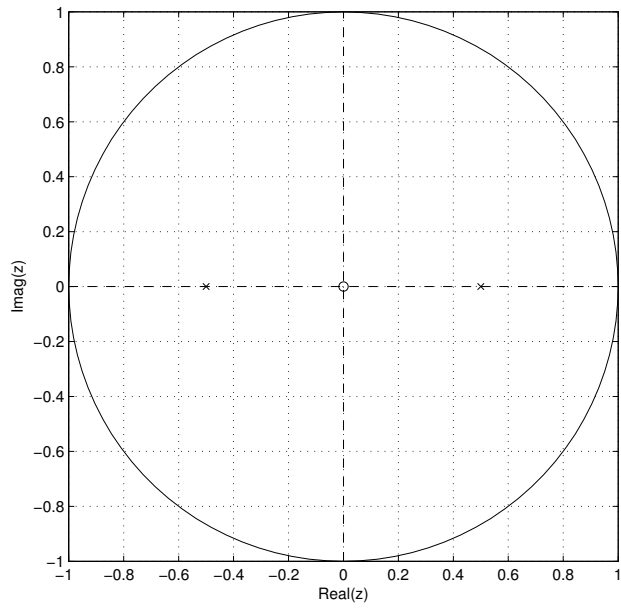


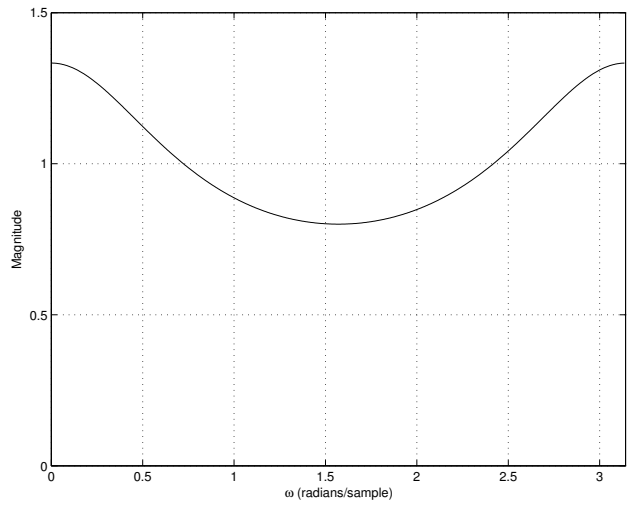
Figure 2: Plots for Prob. 2 (a) pole/zero pattern and (b) magnitude response.

Prob. 5

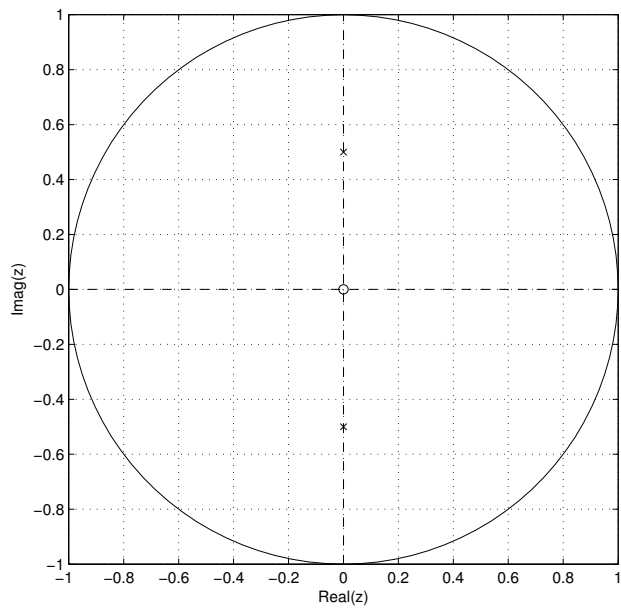
Plots are shown in Figure 5. Plots are same as Example 6.4.3 in text. The magnitude response looks like a “comb.”



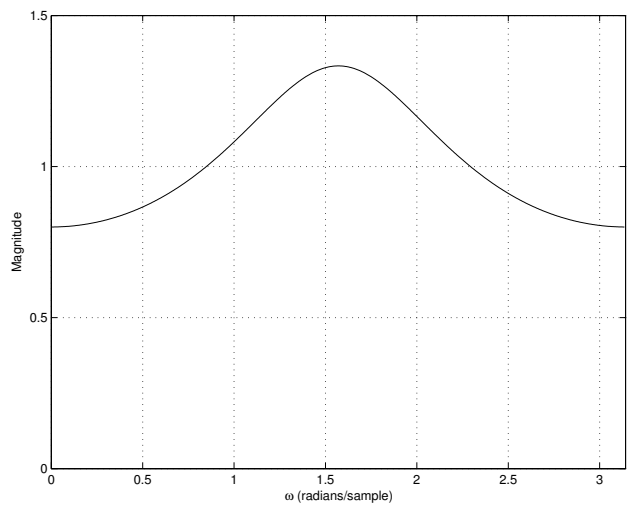
(a)



(b)



(c)



(d)

Figure 3: Plots for Example 6.2.3(a) (a) pole/zero pattern and (b) magnitude response and Example 6.2.3(b) (c) pole/zero pattern and (d) magnitude response.

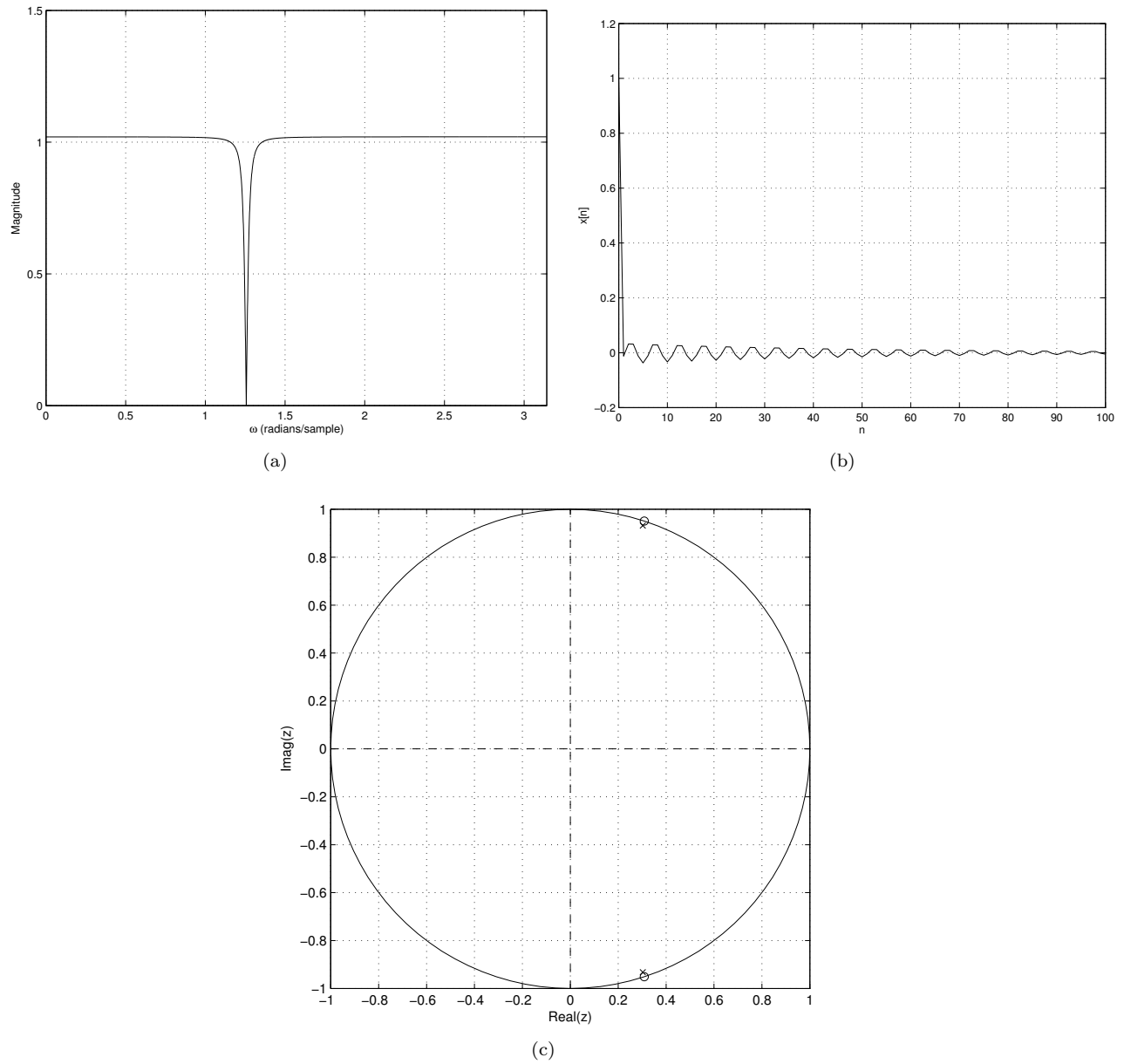


Figure 4: Plots for Example 6.4.2(a) (a) magnitude response, (b) impulse response, and (c) pole/zero pattern.

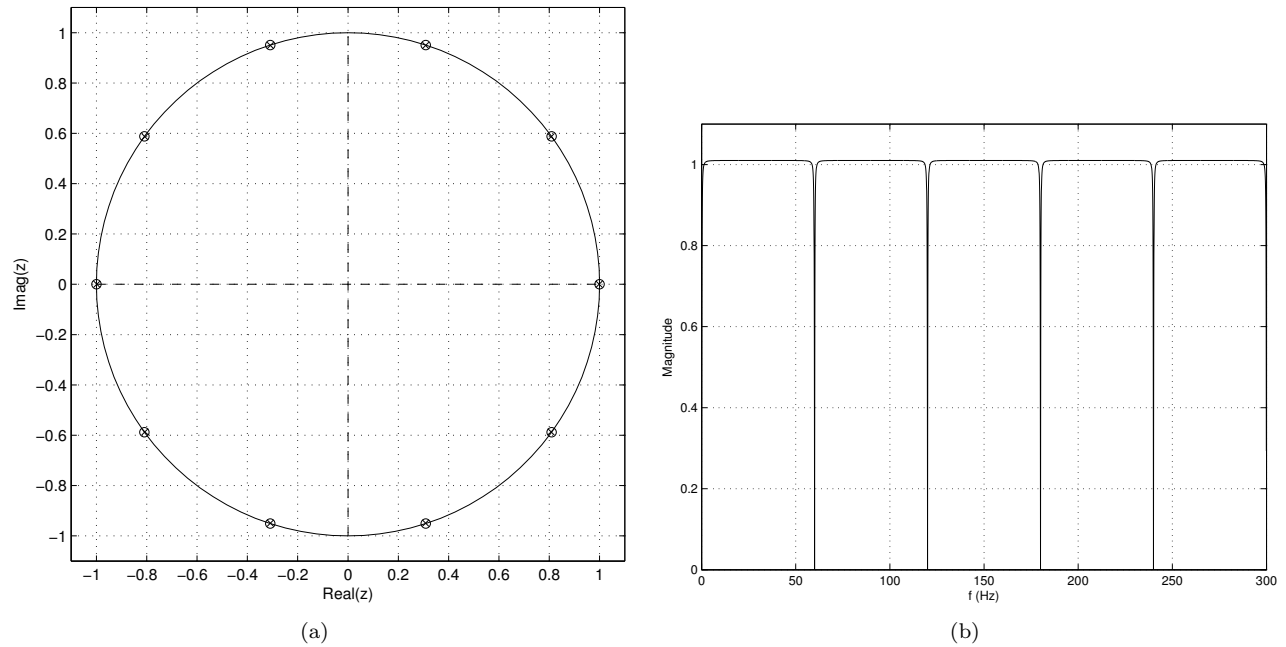


Figure 5: Plots for Prob. 5 (a) pole/zero pattern and (b) magnitude response.

Textbook Problems

Solutions to textbook problems may be found in the online solution manual.