

```

%case 2

% H(z) =
%      1 + sqrt(2) z^(-1) + z^(-2)
% A * -----
%      1 + a(1) z^(-1) + a(2) z^(-2)

b1 = 1;
b2 = -(sqrt(2));
b3 = 1;

a1 = -sqrt(2);
a2 = 1;
A = 0.5; %|a1| < sqrt(2) and |a2| < 1
numd1 = [b1 b2 b3];
dend1 = [1 a1 a2];

[f1,H1]=freqzdB(numd1,dend1,501,0,0.5);
figure(3);
plot(f1,H1)
hold on;
grid on;
title('Frequency response from f = 0 to 0.5 for IIR Digital Notch
Filter')
figure(4);
zplane(numd1,dend1)
title('Pole-zero plot IIR Digital Notch Filter')
grid on;
hold on;

```