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```

clc;
clear;
close all;

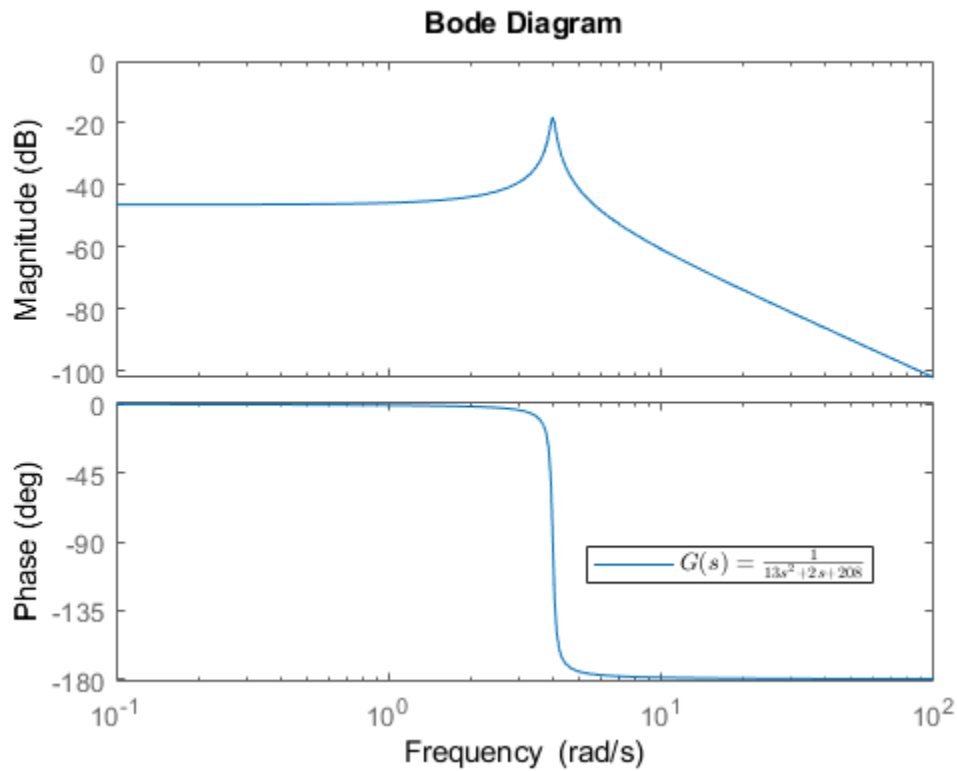
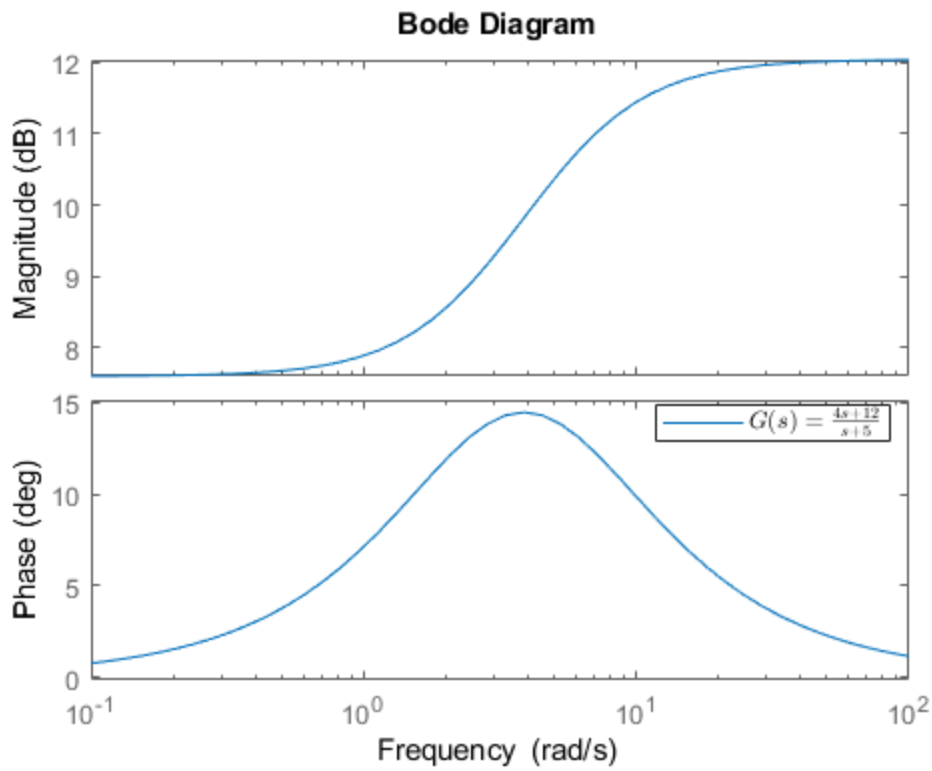
%%Problem 1
%transfer function:  $G(s) = (4s+12)/(s+5)$ 
%numerator (output):  $(4s+12)$ 
%denominator (input):  $(s+5)$ 
figure;
G = tf([4,12],[1,5]);
bode(G)
legendStuff = ["$G(s) = \frac{4s+12}{s+5}$"];
lgnd= legend(legendStuff);
set(lgnd, 'Interpreter','latex')
lgnd.Location = 'best';
hold off;

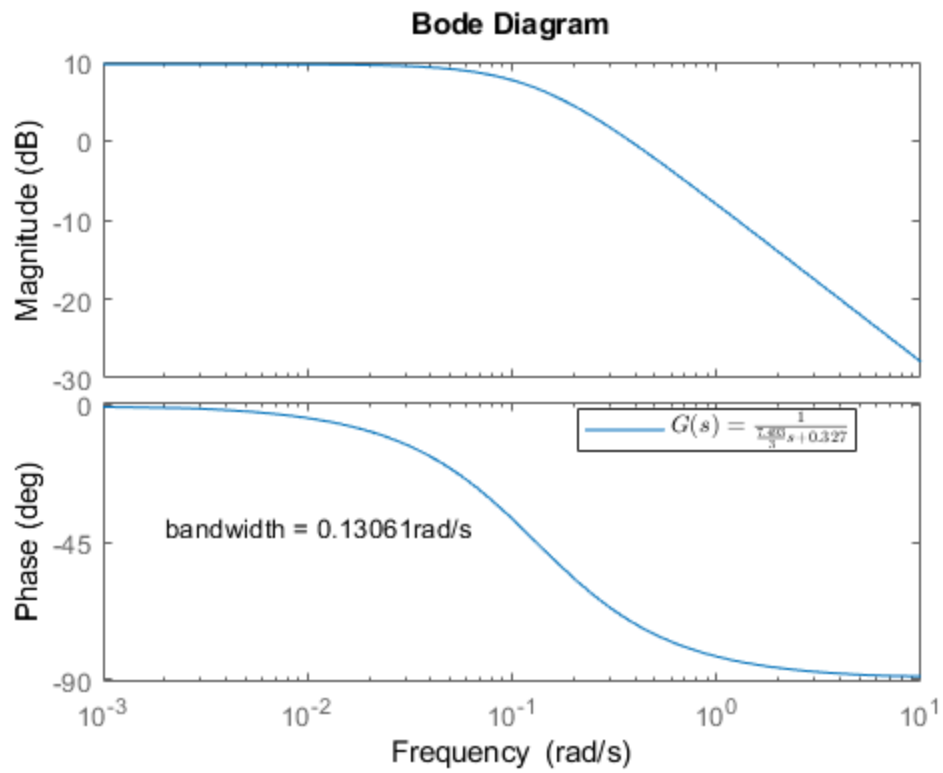
%%Problem 2
%transfer function:  $G(s) = (1)/(13s^2 + 2s + 208)$ 
%numerator (output):  $(1)$ 
%denominator (input):  $(13s^2 + 2s + 208)$ 
figure;
G = tf([1],[13,2,208]);
bode(G)
legendStuff = ["$G(s) = \frac{1}{13s^2 + 2s + 208}$"];
lgnd= legend(legendStuff);
set(lgnd, 'Interpreter','latex')
lgnd.Location = 'best';
hold off;

%%Problem 3
%transfer function:  $G(s) = (1)/((7.493/3)s+0.327)$ 
%numerator (output):  $(1)$ 
%denominator (input):  $((7.493/3)s+0.327)$ 
figure;
G = tf([1],[7.493/3,0.327]);
bode(G)
text(1/500,-40,"bandwidth = " + num2str(bandwidth(G)) + "rad/s")
%%might be off by 1.6x, because maybe didn't read graph too accurately
legendStuff = ["$G(s) = \frac{1}{\frac{7.493}{3}s+0.327}$"];
lgnd= legend(legendStuff);
set(lgnd, 'Interpreter','latex')
lgnd.Location = 'best';
hold off;

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