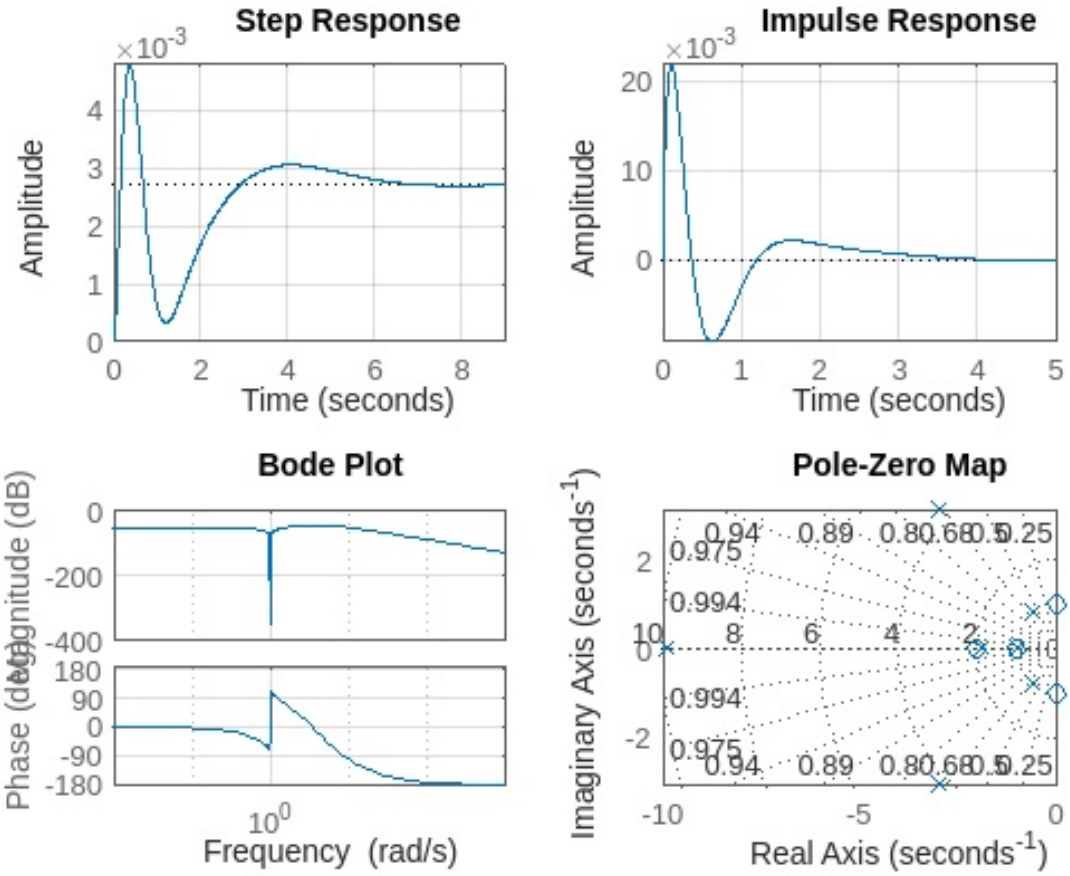
```
g1 = tf(1, [1 10]);
g2 = tf(1, [1 1]);
g3 = tf([1 0 1], [1 4 4]);
g4 = tf([1 1], [1 6]);
h1 = tf([1 1], [1 2]);
h2 = 2;
h3 = 1;

gf1 = feedback(series(g3, g4), h1);
gf2 = feedback(series(gf1, g2), h2 / g4);
t = feedback(series(gf2, g1), h3);

t = minreal(t);
zpk(t)
```

```
ans =

                        0.5 (s+2) (s+1)^2 (s^2 + 1)
  ------------------------------------------------------------------------
  (s+9.914) (s+1.907) (s+1) (s^2 + 1.224s + 1.053) (s^2 + 5.954s + 18.39)

Continuous-time zero/pole/gain model.
Model Properties
```

```
figure;
subplot(2, 2, 1); step(t); title('Step Response'); grid on;
subplot(2, 2, 2); impulse(t); title('Impulse Response'); grid on;
subplot(2, 2, 3); bode(t); title('Bode Plot'); grid on;
subplot(2, 2, 4); pzmap(t); title('Pole-Zero Map'); grid on;
```


Step Response
×10^-3
Amplitude
Time (seconds)
Impulse Response
×10^-3
Amplitude
Time (seconds)
Bode Plot
Magnitude (dB)
Phase (deg)
Frequency (rad/s)
Pole-Zero Map
Imaginary Axis (seconds^-1)
Real Axis (seconds^-1)
0.94
0.89
0.8
0.68
0.5
0.25
0.975
0.994