**MATLAB Examples**

1. Pole-zero diagram:

$$H\left(s\right)=\frac{s}{s^{2}+2s+101}$$

 num = [1 0]; % Define numerator polynomial

 den = [1 2 101]; % Define denominator polynomial

 pzmap(num,den) % Plot pole-zero diagram

1. Unit Step Response:

 num = [1 0]; % Define numerator polynomial

 den = [1 2 101]; % Define denominator polynomial

 step(num,den) % Plot the step response