

MATLAB Examples

1. Pole-zero diagram:

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

```
num = [1 0];           % Define numerator polynomial
den = [1 2 101];       % Define denominator polynomial
pzmap(num,den)         % Plot pole-zero diagram
```

2. Unit Step Response:

```
num = [1 0];           % Define numerator polynomial
den = [1 2 101];       % Define denominator polynomial
step(num,den)          % Plot the step response
```