

Using Matlab's Bode Command

Assume that you want to use Matlab's bode command to generate a bode plot for the following transfer function:

$$H(s) = \frac{sRC}{sRC + 1},$$

where $R=100\text{k}\Omega$ and $C=1\mu\text{F}$. To plot the magnitude of the transfer function versus radian frequency, you'll need to use the following code:

```
R = 100e3;  
C = 1e-6;  
  
num = [R*C 0];  
den = [R*C 1];  
  
bode(num, den);
```

Notice that bode takes two input arguments. The first, which is the variable `num`, contains the coefficients in the numerator of the transfer function; the second contains the coefficients in the denominator of the transfer function.