

ECE 366-001 HW #1
Fall 2008
Due 09/05/08

- Office Hours: W 3:30-5:00 p.m.
 - The following questions are from Lathi's book, Second Edition.
 - Read Chapter B.1-B.3 and MATLAB Session B.
1. B.2 a, d, f and B.3 b, c, e Use MATLAB's cart2pol and pol2cart functions to verify your answers. (see example CB.1 in the book.)
 2. B.7
 3. B.23. Include your MATLAB code and the resulting figures. Make sure to label the figures.
 4. B. 24. Include your MATLAB code and the resulting figures. Make sure to label the figures.
 5. The transfer function for a RC circuit is given by $\frac{1}{1 + j2\pi fRC}$ with $R=16\text{k}\Omega$ and $C=1\mu\text{F}$. Plot the amplitude and phase response of this filter over a frequency range of 0-1000 Hz and determine what type of filter it corresponds to.