Laboratory 3 – Fourier series implementation, Fourier transform and Bode Plots in MATLAB

(Pre-Lab exercises)

Note: Pre-lab exercises will not be graded by the TAs, but you are strongly encouraged to complete these exercises before your lab session.

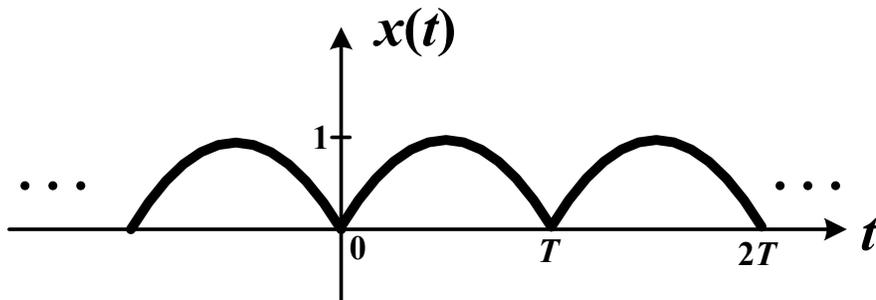1. Determine the Fourier coefficients: a_0, a_n and b_n of the following signal:

Fig. 1

2. Consider each of the following LTI systems, determine the gain response and phase response equations.
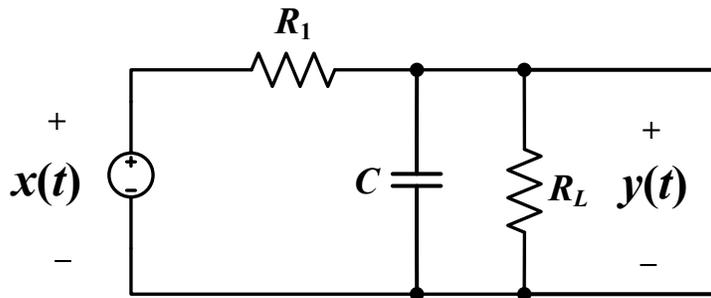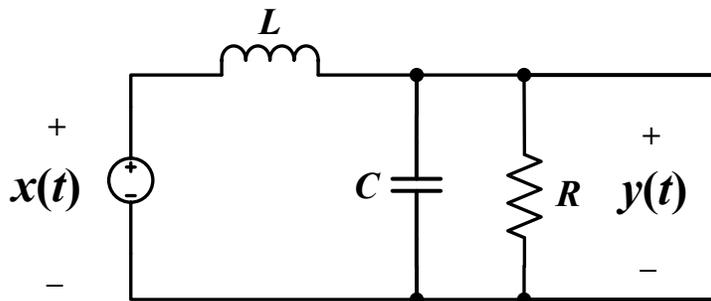

Fig. 2

Fig. 3