Fall 2018 - Quiz 3 ECE 301: Signals and Systems

Prof.Aly El Gamal

Problem 1

For the continuous time periodic signal x(t) with fundamental period T as shown in figure 1, calculate the Fourier series coefficients when

a
$$T = 6T_1$$

b $T=2T_{\rm 1}.$ Explain the observed Fourier coefficients for this case



Figure 1

Problem 2

If the Fourier series coefficients of a continuous time periodic signal x(t) are given by a_k . Find the Fourier series coefficients of $x^*(t)$, the complex conjugate of x(t).