



Department of Electrical Engineering
School of Science and Engineering

EE310 Signals and Systems

TUTORIAL 3

Tutorial 3-1

Consider the signal $g(t)$ given by

$$g(t) = \sum_{n=-\infty}^{\infty} x[n]\delta(t - nT),$$

where $x[n]$ is periodic with period N .

- Determine the fundamental period of $g(t)$.
- Determine the Fourier series coefficients of $g(t)$.
- Show that the Fourier series coefficients are periodic with period N .

Tutorial 3-2

Determine the Fourier series coefficients of the continuous time periodic signal $z(t)$ shown in Fig. 1.

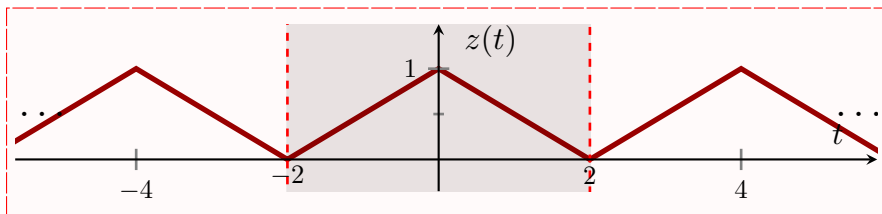


Figure 1: Signal $z(t)$.