

Course 2E2 2007-08 (SF Engineers & MSISS & MEMS)

S h e e t 21

Due: at the end of the tutorial next Wednesday/Thursday

Exercise 1

Find the Fourier series of the function $f(x)$:

- (i) $f(x) = \begin{cases} 1 & \text{if } -\pi < x < 0 \\ 3 & \text{if } 0 < x < \pi; \end{cases}$
- (ii) $f(x) = 1 - x, -\pi < x < \pi;$
- (iii) $f(x) = \begin{cases} x - 1 & \text{if } -\pi < x < 0 \\ 1 - x & \text{if } 0 < x < \pi. \end{cases}$