Department of Electrical and Computer Engineering - University of Toronto
ECE431, Fall-2023

Tutorial Assignment 2

From text problems:

4.21

4.23

4.31

4.62

2. Consider the periodic discrete time signal $\tilde{x}(n) = \tilde{x}(n+5l)$, $n, l = 0, \pm 1, \pm 2, \ldots$, where $\tilde{x}(-1) = \tilde{x}(1) = 0.5$, $\tilde{x}(0) = 1$ and $\tilde{x}(2) = \tilde{x}(3) = 0$. Calculate and draw the Discrete Time Fourier Series (DTFS), $\tilde{X}(k)$, $k = 0, \pm 1, \pm 2, \ldots$.