

PROBLEM:

A periodic signal, $x(t)$, is given by

$$x(t) = 1 + 2 \cos(300\pi t + \pi/4) + \sin(500\pi t)$$

- (a) What is the period of $x(t)$?
- (b) Find the Fourier series coefficients of $x(t)$ for $-6 \leq k \leq 6$.