
EXERCISE C.6: Use integration by parts to show that

$$\int t e^{-j\omega_0 k t} dt = e^{-j\omega_0 k t} \left(\frac{j\omega_0 k t + 1}{\omega_0^2 k^2} \right)$$

Then, starting from (C.18), derive the formula (C.20) for the Fourier series coefficients of the triangular wave.

