

6-14 Find the Fourier series for the following functions ($0 \leq x \leq L$):

(a) $y(x) = Ax(L - x)$.

(b) $y(x) = A \sin(\pi x/L)$.

(c) $y(x) = \begin{cases} A \sin(2\pi x/L), & 0 \leq x \leq L/2 \\ 0, & L/2 \leq x \leq L. \end{cases}$