

Quiz–Fourier Series

Let f be the function defined by

$$f(x) = \begin{cases} 0, & -1 \leq x \leq 0, \\ x, & 0 \leq x \leq 1 \end{cases}.$$

- (a) Is f even, odd, both, or neither?
- (b) Compute the Fourier series for f .

Show all work and clearly mark your final answer. No calculators/notes allowed. Partial credit will be given for correctly explaining any steps you're unable to carry out, as well as demonstrating correct methods with computational errors.