

11.13 Fourier Series

Integrable function: $f(x)$

Fourier coefficients: a_0, a_n, b_n

Whole number: n

$$1248. f(x) = \frac{a_0}{2} + \sum_{n=1}^{\infty} (a_n \cos nx + b_n \sin nx)$$

$$1249. a_n = \frac{1}{\pi} \int_{-\pi}^{\pi} f(x) \cos nx \, dx$$

$$1250. b_n = \frac{1}{\pi} \int_{-\pi}^{\pi} f(x) \sin nx \, dx$$