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