## the formula for the Fourier coefficients $a_k$ becomes relatively simple: all the even-indexed coefficients (except for $a_0$ ) become zero.

**Example C-1:** The square wave is the special case of the pulse wave, where  $\tau = T_0/2$ . In this case,

$$a_k = \frac{\sin(\pi k (T_0/2)/T_0)}{\pi k} = \frac{\sin(\pi k/2)}{\pi k}$$

$$\Rightarrow a_0 = \frac{1}{2}, \ a_{\pm 1} = \frac{1}{\pi}, \ a_{\pm 2} = 0, \ a_{\pm 3} = \frac{-1}{3\pi}, \ a_{\pm 4} = 0, \ a_{\pm 5} = \frac{1}{5\pi}, \dots$$

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