

**VI.2.**

$$(a) \quad \frac{2}{L} \sum_{n=1, n \text{ odd}}^{\infty} \cos(\pi n x / L), \quad (b) \quad \frac{1}{2L} + \sum_{n=0}^{\infty} \frac{1}{L} \cos(\pi n x / L).$$

**VI.6.**

$$(a) \quad \frac{1}{4} (e^{-3} + e^{-1}), \quad (b) \quad \frac{1}{5} (e^{-9} + e^{-4}).$$

**VI.7.**

$$y(x, t) = \frac{2I}{\pi v \mu} \sum_{n=1}^{\infty} \frac{1}{n} (\sin(\pi n / 3) + \sin(2\pi n / 3)) \sin(\pi n x / L) \sin(\pi n v t / L).$$

**VI.11.**

$$e^{-x} \delta'(x) = \delta(x) + \delta'(x).$$