

Sec 3.2 3

$$u(x, t) = \sum_{n=1}^{\infty} b_n \sin\left(\frac{n\pi x}{a}\right) \sin\left(\frac{n\pi ct}{a}\right)$$

where $b_n = \frac{2a(1-\cos(n\pi))}{n^2\pi^2c}$
Sec 3.3 5

$$G(x) = \begin{cases} 0, & 0 < x < 0.4a, \\ 5x - 2a, & 0.4a < x < 0.6a \\ a, & 0.6a < x < a \end{cases}$$