

Exercise 9

- (a) Find $u(\frac{2}{3}, 2)$ if $u_{tt} = u_{xx}$ in $0 < x < 1$, $u(x, 0) = x^2(1 - x)$, $u_t(x, 0) = (1 - x)^2$, $u(0, t) = u(1, t) = 0$.
- (b) Find $u(\frac{1}{4}, \frac{7}{2})$.