

MAE502 Fall 2018 HW5 Solution

Task 1

$$u(x, t) = \frac{1}{1 + 2t} e^{-\left(\frac{x}{1+2t}\right)^2}$$

Task 2

$$u(x, t) = e^{-\left(x + \frac{3}{2}t^2\right)^2 - 2t}$$

Task 3

$$u(3, 2) = \frac{1}{10}$$