

MAE/MSE 502, Spring 2022 HW4 Solution

Problem 1

$$u(x, t) = (1 + t)e^t + [1 - \cos(t)] \cos(x) + e^{-8t} \cos(3x)$$

Problem 2

$$u(x, t) = [2 \cos(t) + \sin(t) - 1] \sin(x)$$

Problem 3

$$u(x, t) = \sin(2x) e^{-3t} + \sin(x) - 1$$

Problem 4

$$u(x, t) = 2t - \sin(t) + \cos(t) \cos(x)$$