

MATH 2850: TAKE HOME 15 (25 points.)

NAME: _____

DUE: Wednesday, May 8th, at the beginning of class.

DIRECTIONS: Show all work.

1. Solve the IVP: $y''' - 3y' + 2y = 9e^{-2x}$, $y(0) = 5$, $y'(0) = -4$, $y''(0) = 17$.

2. Solve the IVP using Variation of Parameters: $x^3y''' + 2x^2y'' - 2xy' = 4$, $y(1) = 0$, $y'(1) = 8$, and $y''(1) = 0$.

