

3.5: Nonhomogeneous ODEs: The Method of Undetermined Coefficients

Examples:

$$y'' + 5y' + 4y = \sin(t)$$

$$2y'' - 3y' - 2y = 5e^{3t} + t^2$$

$$2y'' - 3y' - 2y = 5e^{2t}$$

Write the form of the particular solution to $y'' + 2y' + 10y = e^{-t} \sin(3t)$
(DO NOT try to solve for the coefficients!)