Name: _____

1. Find the general solution of the D.E. $y'' - 2y' - 3y = 0$

2. Using undetermined coefficients method, find the general solution of $y'' - 2y' - 3y = -3xe^{-x}$

3. Find the general solution of $y'' + 2y' + y = 0$

4. Using variation of parameters, find the general solution of $y'' + 2y' + y = 3e^{-x}$