

Name: \_\_\_\_\_

1. [3 points] Find the general solution to  $y^{(4)} + y^{(3)} - 8y'' - 12y' = 0$ .

2. [3 points] Find the general solution to  $y^{(2)} - 3y' - 10y = te^{2t}$ .

3. [4 points] Solve the IVP  $y'' - 4y' + 4y = t$  with  $y(0) = 0$  and  $y'(0) = 1$ .