Math 45, Fall 2020
October 28, Quiz 08 Name: _____

Please show and explain your work where necessary. Good luck!!

1. (*10 points*)

a. (*4 pts*) Find a general solution to the DE $y'' - 5y' + 6y = 0$.

b. (*2 pts*) Note that $y_p = e^x$ is a solution to the DE $y'' - 5y' + 6y = 2e^x$ (you do not need to show or verify this). Provide a general solution to this DE.

c. (*4 pts*) We have that e^{2x} is a solution to the DE $y'' - 4y' + 4y = 0$. Use the method of reduction of order to find another (linearly independent) solution to this DE and write the general solution for this DE.