

# MTH 3311 - Practice Test #3

FALL 2018

Pat Rossi

Name \_\_\_\_\_

Show **CLEARLY** how you arrive at you answers!

1. Find the general solution to the equation  $x^2y'' + 5xy' + 4y = 5x^4 + 3x^{\frac{1}{2}}$
2. Find the general solution to the equation  $x^2y'' + 5xy' + 4y = 5x^{-2}$
3. Find the general solution to the equation  $x^2y'' + 5xy' + 3y = \ln(x)$