

MTH 3311 - Test #3

FALL 2018

Pat Rossi

Name _____

Show CLEARLY how you arrive at your answers!

1. Find the general solution of the differential equation: $y'' + y' = \cos(x)$
2. Find the general solution of the differential equation: $y'' - 9y = e^{3x}$
3. Find the general solution of the differential equation: $y'' + y = \csc^2 x$
4. Find the general solution of the differential equation: $x^2y'' + 4xy' + 2y = \sin(x)$