

**MTH 3311 - Test #3**

FALL 2018

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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:  $y'' + y = \csc^2 x$