

Math 202-171 Quiz 3.

Name\_\_\_\_\_ Section\_\_ Serial #\_\_Id\_\_\_\_\_

Q1: Given that  $y_1 = x^{-1}$  is a solution of

$$xy'' + (2 + 2x)y' + 2y = 0$$

find a solution  $y_2$  linearly independent of  $y_1$

Q2: Find a differential equation whose solution is

$$y = \sin x \sin 2x$$