

Math 226: Quiz**Apr. 1, 1992**

Show your work and circle your final answer.

1. Given that $y_1 = x$ is a solution to

$$x^2y'' - x(x+3)y' + (x+3)y = 0$$

find a second linearly independent solution.

2. Determine the unique solution to the initial value problem

$$y'' + 2y' + 5y = 0, \quad y(0) = 1, \quad y'(0) = 0$$