

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 202 (112) - Quiz 2

Name: _____ ID: _____ Serial No.: _____

1. Given $y_1 = x \sin(\ln x)$ is a solution of the DE

$$x^2 y'' - x y' + 2y = 0$$

Use reduction of order to find a second solution?

2. Find the solution to the IVP

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