King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 202-02   Quiz #3

Name:...ID:...........................

Exercise: Consider the differential equation

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

(i) Show that $y_1 = x$ is solution of the DE

(ii) Use the reduction of order formula to find a second solution y_2 to the DE, linearily independent from y_1.