

October 22,2011

QUIZ#2 Math202, sec 5,

Time allowed: 15 minutes

Name:

ID # :

Serial:

Exercise:

Let $y_1 = x$ be a solution of the homogeneous differential equation:

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

- 1- Use the reduction of order to find a second solution y_2 .
 - 2- Find the interval over which y_1 and y_2 are linearly independent.
- solution.**