

**Math 202 Quiz 2**

April 6, 2005

Name \_\_\_\_\_

id:

Section

1. Verify that  $e^x$  and  $xe^x$  are fundamental solutions of the equation  $y'' - 2y' + y = 0$ .
2. a) Define linear dependence of functions  $f_1, f_2, f_3$ .  
b) Use definition of linear dependence to show that the functions  $1 + x, x$  and  $x^2$  are linearly dependent.