

Name _____

Student I.D. _____

Math 2250-1
Quiz 7
October 21, 2011

1) Consider the differential equation for $y(x)$

$$y'' + 5 \cdot y' + 6 \cdot y = 0 .$$

1a) Find the general solution to this differential equation.

(6 points)

1b) What is the dimension of the solution space above?

(1 point)

1c) Use your work in (1a) to solve the initial value problem

$$y'' + 5 \cdot y' + 6 \cdot y = 0$$

$$y(0) = -1$$

$$y'(0) = 4 .$$

(3 points)