**Instructions:** This is a group quiz. You may work in groups of up to 3 in a group, you may use a calculator, and you may use the text and notes. Be sure to leave enough work below so that you could reproduce the reasons later.

1. Given y'' + 6y' + 9y = 0, we know that  $y_1 = e^{-3t}$ . Use the Wronskian two ways to get a second solution,  $y_2$ , so that  $y_1, y_2$  form a fundamental set.

2. In each case, give the general solution.

(a) 
$$y'' - 5y' + 6y = 0$$
.

(b) 
$$y'' + 2y' + 5y = 0$$

(c) 
$$y'' + 2y' + y = 0$$