

Math 222, Spring 2016.

Present your work in an organized fashion. Make sure that your work is algebraically correct and logically sound. Show all your work. Discussion (if necessary) with others is encouraged, while copying other's solution is a violation of NJIT student honor code. Do not forget that you should also be able to do (but not hand in) the homework problems listed on the syllabus.

Homework Problems for Week 3

1. Solve problem 24 from Section 2.3 in your textbook.
2. Consider the following two equations

$$y' = 4 - 2t - 3y, y(0) = 1 \tag{1}$$

$$y' = 4 - 2t + 3y, y(0) = 1 \tag{2}$$

If we were to use Euler's method to numerically solve each of these equations, would you expect the method to be more accurate for equation (1) or (2), or equally accurate for both? Carefully explain why.