Homework Problems for Week 3

1. Solve problem 24 from Section 2.3 in your textbook.

2. Consider the following two equations

   \[ y' = 4 - 2t - 3y, \quad y(0) = 1 \]  
   \[ y' = 4 - 2t + 3y, \quad y(0) = 1 \]

   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.