Homework Set 2
Due Friday, August 31

I. Draw the direction field for the differential equations below. Do not use a computer or calculator.

1. \( y' = 3y \)  
2. \( y' = 1 - 3y \)
3. \( y' = 5 + 2y \)  
4. \( y' = e^{-2t} - 3y \)
5. \( y' = y^2 - 1 \)  
6. \( y' = (y-a)(y-b)(y-c), \) where \( 0 < a < b < c \)

II. Find a differential equation for each direction field on the back of this sheet.

III. In Section 2.1 make sure you know how to do problems like 1-20. You can check your answers in the book. But do turn them in.

IV. In Section 2.1 do numbers 25 and 36.