HW Wk 3: Math 210

For Monday's class Feb 7th:

I. a. Find the general solution of the DE dy/dt = (15 – y)/20.
   b. Find particular solutions that satisfy each of the following initial conditions:
      (i). y(0) = 20, (ii). y(0) = 10, (iii). y(0) = 15 and (iv). y(2) = 3.
   c. Graph the solutions (i), (ii), (iii) all on the same picture.

Due Wed February 9th.
II. Do one of the three Pfaff modules. Answer the questions in the word document next to the data set on Pfaff's webpage.

II. Find the general solution of the DE dy/dt = y^2. Find the particular solution that solves the initial condition
    y(t=0) = 1. Sketch this solution. For what value of t does the solution “blow up” (i.e. go to infinity)?

Textbook

Sect 1.3 #9 (photocopy the page; then draw on it), 14 (remember that the f function gives the slope field), 15, 16, 17, 18

Sect 1.2  # 1, 3, 4, 6, 7, 11, 23, 31, 35