Math 251: Problem Set 2
Due: September 17, 2009

Book

- Section 2.1: 1, 7, 9
- Section 2.2: 1, 5, 11(Matlab), 13, 25, 33(Matlab)
- Section 2.3: 1, 3, 7, 13, 23, 29
- Section 2.4: 1, 3, 15, 19 ,21, 23

Matlab

1. Create a symbolic function
$$f_1(t) = \frac{1.5}{1+t^2}$$
and evaluate the function for 5 equally spaced points between 1 and 5.
2. Plot the function $f_1(t)$ for $-5 \leq t \leq 7$.
3. Create a symbolic function
$$f_2(t) = -\frac{3t}{(1+t^2)^2}$$
and evaluate the function for 5 equally spaced points between 1 and 5.
4. Plot the function $f_2(t)$ for $-5 \leq t \leq 7$.
5. Use hold to plot f_1 and f_2 on the same plot.
6. Add labels for the x-axis and y-axis, and add a title and legend. The commands are `xlabel, ylabel, title, legend` respectively. You can type `help command` to get more information.
7. Evaluate both f_1 and f_2 as t goes to 0.