Below are the written homework assignments for the next month.
In addition, you should be solving (almost) every problem on the course calendar. I would be delighted to answer occasional questions about homework that you find interesting.

- Homework G. Maple worksheet as described in handout. Due Monday, 16 February 2004. (20 points of extra credit)

- Homework H. §7.1 #38 Due Wednesday 18 February 2004. (10 points)

- Homework I. §7.3 #32. Due Monday 23 February 2004. (10 points)

- Homework J. §7.4 # 34, 54. Due Friday, 27 February 2004. (20 points)

- Homework K. Due Wednesday, 3 March 2004. Compute $\pi$ with an error of at most $10^{-2}$. (15 points)

  1. Use the error estimate to find $n$ so that the error in the trapezoid rule,

  $$\left| T_n - \int_0^{1/2} \frac{1}{\sqrt{1-x^2}} \, dx \right| \leq 1/600.$$

  2. Evaluate $T_n$ for the value of $n$ you found above and use the answer to approximate $\pi$. Please give the value of $T_n$ to four decimal places.

- Homework L. Due Friday, 5 March 2004. (10 points)

  Find the solution of the differential equation $y' = y(2 - y)$ with the initial condition $y(0) = 1$. Use your solution to find
  $$\lim_{t \to \infty} y(t).$$