Homework Assignment for Week 09

1. Section 4.7: problem 9. Then in problems 18, 21, 29, 30, give formula for Newton's method, and need not find the numerical value of the solution.

   In problem 29, also estimate how many iterations it takes to get $|x_n - x_*| \leq 10^{-3}$.

   Hint for problem 18: you need to find an equation so that π is a solution. Trigonometric functions will help.

2. Section 4.8: pick at least 10 among the odd ones in problems 25-69. Problems 79, 80, 84, 127, 128.

3. Section 5.2: problem 41.

4. Section 5.3: problems 5, 49, 71, 73 (check Table 5.4 for the Max-Min Inequality), 85.

   Problem 87 is optional. Do it if time permits. It gives you a feeling (although does not completely answer) why continuous functions are integrable.