

Homework Assignment for Week 09

1. Section 4.5: problems 21, 51, 57, 65, 73, 80, 81(b), 84(c), 86.
2. Section 4.6: problems 12, 27, 48, 62, 67(a).
3. 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: try to express $x_{n+1} - 1$ in terms of $x_n - 1$.

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