

Homework 2, due Friday 19 September.

1. (20 points) Explore the Wikipedia pages on the topics that we covered in chapter 1. Find something that is incorrect, incomplete, or poorly explained. Start a file and write down what you found, where you found it, and how you propose to change it. This file will eventually become your class project, so give it a nice title and think about how you want it formatted and organized. Print and submit this file.
2. (15 points) Section 1.2 problem 17.
3. (15 points) Section 1.3 problem 6.
4. (20 points) Do this problem as a Good Problem, paying attention to the *Flow* handout. Section 1.3 problem 8.
5. (30 points)
 - (a) Section 1.3 problem 10.
 - (b) Write a MATLAB function program to implement your algorithm. Name/format it as
`function [x1,x2]=quadroots(a,b,c)`
 - (c) Write a MATLAB function program to test your `quadroots` function. Have it call `quadroots` to get x_1 and x_2 , and then compute $r_1 = ax_1^2 + bx_1 + c$ and $r_2 = ax_2^2 + bx_2 + c$. Name/format it as
`function [r1,r2]=testquadroots(a,b,c)`
Use it to check on several quadratic polynomials, including $x^2 + 1$, $x^2 - 2x + 1$, and $x^2 - x + 10^{-16}$.