Section 1.2 Exercises

WDRP - Simple Discrete Models in Biology and MATLAB

1. Exercise 1.2.2
2. *Exercise 1.2.3
3. Exercise 1.2.5
4. *Exercise 1.2.6
    - For part c) it is probably worthwhile to create a script that plots the cobwebbing process. (Especially if you might want to show off the technique during your final presentation!)
    - Alternatively, if you don't want to, you can just use MATLAB to compute the intersection using the cobwebbing technique. But in this case, you should use a while loop to stop the process once the approximation comes within a certain tolerance (see "Cauchy Sequences" in the MATLAB Iterations Exercises File)
5. Exercise 1.2.8
    - Similar to Exercise 1.1.15/1.1.16 from section 1.1.
6. You can try redoing exercise 1.1.5 (Section 1.1) with the appropriate change of "How much time must pass before the population reaches a stable equilibrium?". This time using the logistic model.
    - This is essentially the exercise "Cauchy Sequences"/"Error Bounds" from the MATLAB Iteration Exercises file.
    - You should use a value of $r = 1.8$.