Numerical Methods, 2018 Spring

Assignment 3
Due on 4/23

Note: you should explain how you obtain your solution in your submission. If you use MATLAB or any other software to compute your results, you should provide your code or describe your solving process. This is a good practice for you to explain things in a logical, organized, and concise way!

1. (20%) Chapter 3: Exercise 12 and 14 (a)(b)(c)(d).

2. (15%) Chapter 3: Exercise 44

3. (20%) Chapter 3: Exercise 54

4. (20%) Chapter 3: Exercise 64 (NO need to compare to the result of Exercise 62)

5. (20%) Chapter 3: Exercise 73. Plot the data points and each fitted curve in (a), (b), and (c) respectively.

6. (30%) (Bonus) Chapter 3: App3. Try at least four approaches. You can use the interpolation or curve fitting approaches listed in App2 or any approach you learned in the class. Or you can come up with a curve fitting approach that can fit the data well and estimate the expenditure for 1980 accurately. Please upload your code to the course website.