Required textbook problems (hand these in):
(1) §6.5: 4, 6, 10.
(2) §6.7: 4, 6, 8, 25.
(3) §6.8: 5, 6, 8, 9.
(4) §5.7: 2, 5, 6, 7, 8, 9, 10.

Suggested practice (don’t hand these in):
• Please read and make sure you can do the practice problems in Sections 6.5, 6.7, 6.8, and 5.7.
• If you are interested in a field that involves data (e.g., economics), read Section 6.6 and solve some of its exercises.
• Use Exercise 6.5.17 and 6.5.18 for review.
• If you had trouble or got help with any of the assigned problems, solve another, similar problem (or two).

Bonus points. Sage, as usual. For this week:
(1) Work through the entry “Least-squares, Fourier series”.
(2) Try our numerical_fourier function on $f(x) = x$. Plot a few of the results. You should see that it converges very slowly. This is because the function $f(x) = x$ is not really periodic, i.e., the values at $-\pi$ and $\pi$ do not match.

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