



PARTIAL DIFFERENTIAL EQUATIONS
SPRING 2018

ASSIGNMENT 11
DUE MARCH 6

Exercise 1. Textbook exercise 3.5.3. [*Suggestion:* Use Exercise 2.4.17.]

Exercise 2. Textbook exercise 3.5.4. [*Suggestion:* Use Exercise 2.3.29.]

Exercise 3. Textbook exercise 3.5.5 [*Suggestion:* Use Exercise 2.3.2.]

Exercise 4. Textbook exercise 3.5.7(a).

Exercise 5. Textbook exercise 3.5.10(b).

Exercise 6. Textbook exercise 3.5.13. [*Suggestion:* According to the preceding exercise, the coefficients b_n of the solution are the sine series coefficients of $f(x)$ minus $2\frac{T_1+(-1)^nT_2}{n\pi}$. This should help you avoid some gnarly integration.]