CORRIGENDUM

Page 25: $x - y$ *can have* increased relative error

Exercise 6.2: $f'(0) = c_0 + c_1 x_1 + c_2 x_2$ should be $f'(0) = c_0 f(0) + c_1 f(x_1) + c_2 f(x_2)$

Exercise 6.7: The stated inequalties are valid when the norms are defined without the factors of n. For the definition of norms as stated in the book, the following is a set of valid inequalities:

$$n\|y\|_2 \geq n\|y\|_1 \geq \|y\|_\infty \geq \|y\|_1 \geq \frac{1}{\sqrt{n}}\|y\|_2$$

Exercise 7.8b: Simplified from general N to $N = 4$.

Exercise 13.1: Part (a) is revised for clarity, and subtask (b) has been inserted.

Exercise 15.2c: Analytical solution is now provided, so it only needs to be verified rather than derived.

Exercise 15.3:
$$\frac{\partial f}{\partial t} = \frac{\partial}{\partial x}\left(D(x)\frac{\partial f}{\partial x}\right) = 0$$
should be
$$\frac{\partial f}{\partial t} = \frac{\partial}{\partial x}\left(D(x)\frac{\partial f}{\partial x}\right)$$

Also, this is not a conservation law, even though a flux-conservative discretization is asked for.

Exercise 16.3b has been dramatically simplified.

Minor changes

Exericse 2.5b: added "with respect to errors in the coefficients"

Exercise 3.1: "after the comma" $\rightarrow$ "after the decimal point"

Exercise 3.4: "for reach" $\rightarrow$ "for each"

Exercise 4.1: Clarification added

Exercise 7.4b: clarified that this is for a finite interval

Exercise 9.2: Slightly simplified

Exercise 10.2: Reworded for clarity

Exercise 14.1e: A misleading sentence is revised.