Errata to Computational Methods for Numerical Analysis with R

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This document contains a list of known errors and corrections to *Computational Methods for Numerical Analysis with R*.

1. On page 20, equation 1.3 should be,

$$f(x) = a_n x^n + a_{n-1} x^{n-1} + \cdots + a_1 x + a_0.$$

This error was identified by Vahab Khademi, a doctoral student at the University of Massachusetts Amherst

2. On page 23, equation 1.6 should be,

$$\begin{aligned} f(x) &= a_n x^n + a_{n-1} x^{n-1} + \cdots + a_1 x + a_0 \\ &= a_0 + a_1 x + \cdots + a_{n-1} x^{n-1} + a_n x^n \\ &= a_0 + x(a_1 + \cdots + a_{n-1} x^{n-2} + a_n x^{n-1}) \\ &= a_0 + x(a_1 + \cdots + x(a_{n-1} + x(a_n)) \cdots). \end{aligned}$$

This error was also identified by Vahab Khademi

3. On pages 85 and 87, there are implementations of iterative matrix solvers, `jacobi` and `gaussseidel`. Both functions contain the same error and reverse the check for too many iterations. Therefore, they always fail after one iteration. In addition to this, all of the example output is incorrect for both functions. However, the commentary around it is correct. Updated code is posted to the `cmna` GitHub repository.

This error was noted Braden Mailloux