

Errata: Scientific Computing using Maple and Matlab, first edition

- page 3: In equation (1.2), the constant K should be C , i.e.

$$\frac{C(u_{i+1} - 2u_i + u_{i-1}))}{h} = f_i, \quad i = 1, \dots, n,$$

- page 4: The constant K should be also C , i.e.
“Back substitution gives $\mathbf{u} = \frac{h}{C}(-2, -3, -3, -2)^\top$.”

- page 3: the Riemann sum should read

$$\int_{x_{i-1}}^{x_i} w(x)(x - x_{i-1}) dx \approx \sum_{j=1}^N w(x_{i-1} + \frac{jh}{N}) \cdot \frac{jh}{N} \cdot \frac{h}{N}.$$

- page 35: in the displayed formula, y should be replaced by x to obtain

$$\frac{f_2(x + \varepsilon) - f_2(x)}{f_2(x)} = \frac{1}{2(1+x)}\varepsilon + O(\varepsilon^2).$$