

Corrections to the Textbook
Mathematical Methods and Boundary Value Problems
Second Edition

1. **Page 3**

The note preceding Example 5 should follow Example 5.

2. **Page 38, Solution 9(c)**

Replace $f(t) = (t+2)^2[u(t-4) - u(t-3)]$ by $f(t) = (t+2)^2[u(t-3) - u(t-4)]$.
Replace the answer for $\mathcal{L}\{f(t)\}$ by its negative.

3. **Page 77, third-to-last line**

Replace $\sum_{n=0}^{\infty} (n+r)(n+r-1)c_n x^{n+r}$ by $\sum_{n=0}^{\infty} (n+r)(n+r-1)c_n(r)x^{n+r}$.

4. **Page 107, Solution 8(b), third line**

Replace $(x-1)p(x) = \frac{1}{(x-1)(x+2)^2}$ by $(x-1)p(x) = \frac{1}{(x-1)(x+2)}$.

5. **Page 108, Solution 9(b)**

Replace $x^r y'' + 3xy' + y = 0$ by $x^2 y'' + 3xy' + y = 0$.

6. **Page 157, item 3.**

Replace $y(0) = y(L)$ by $y(0) = y(M)$.

7. **Page 241, 1(c)**

Replace $\frac{a_0}{2} + \sum_{n=1}^{\infty} b_n \cos\left(\frac{n\pi x}{L}\right) e^{-\frac{\alpha^2 n^2 \pi^2}{L^2} t}$ by $\frac{a_0}{2} + \sum_{n=1}^{\infty} a_n \cos\left(\frac{n\pi x}{L}\right) e^{-\frac{\alpha^2 n^2 \pi^2}{L^2} t}$.

8. **Page 269, second paragraph, third word**

Replace “in” by “is”.

9. **Page 272, second paragraph, second-to-last line**

Replace $p(0) = 0$ by $p(\alpha) = 0$.

10. **Page 273, Theorem 2**

Replace $0 \leq \lambda_1 < \lambda_2 < \lambda_3 < \cdots$ by $\lambda_1 < \lambda_2 < \lambda_3 < \cdots$. It is possible for a (finite) number of the eigenvalues to be negative.

11. **Page 274, second line**

Replace $\phi = u$ by $\varphi = u$.

12. **Page 359, Solution 2(b)**

Replace $\frac{1}{2}e^{3i\lambda}e^{-|x|}$ by $\frac{1}{2}e^{3ix}e^{-|x|}$.