Partial List of Corrections to Elementary Applied Partial Differential Equations with Fourier Series and Boundary Value Problems by Richard Haberman, Fourth Edition

	Location	Original	Correction
1.	Page 42, 4 lines after Equation 2.3.14	d^2y/d^2	d^2y/dt^2
2.	Page 49, Equation 2.3.30 (correct but style is changed later, Equation 2.4.19)	$e^{-k(n\pi/L)^2t}$	$e^{-(n\pi/L)^2kt}$
3.	Page 51, one line above subsection on Orthogonality	$\cdots$ is either $\cdots \sin n\pi x/L$.	$\cdots$ is one or more complete periods of $\sin^2 n\pi x/L$.
4.	Page 53, 4th line from bottom	; more tens	; more terms
5.	On graphs of Fourier series with jumps, Figures 3.2.2, 3.3.4, 3.3.9, 3.3.11, 3.3.19 and 3.4.1	x	$\times$
6.	Page 118, at jump points of Figure 3.4.3 on the x-axis		$\times$
7.	Page 94, part 3 and all other places that $\times$ or x is used to indicate the value of a Fourier series at a jump point including Figures 3.2.2, 3.3.4, 3.3.9, 3.3.11, 3.3.19, 3.4.1 and 3.4.2	$\times$ or x	$\bullet$ is probably a better choice
8.	On graphs of Fourier series with jumps, Figures 3.2.2, 3.3.4, 3.3.9, 3.3.11, 3.3.19, 3.4.1 and 3.4.2		$\circ$ could be attached to the beginning and end of each segment
9.	Page 131, Exercise 3.5.6	$1+\frac{1}{2^2}+\frac{1}{3^2}+\frac{1}{4^2}+\frac{1}{5^2}+\frac{1}{6^2}+\cdots$	$1+\frac{1}{3^2}+\frac{1}{5^2}+\frac{1}{7^2}+\cdots$
10.	Page 138, Exercise 4.2.1	$u(O)=0$	$u(0)=0$
11.	Page 149, Exercise 4.4.10 part (a)	$u(0,T)=0$	$u(0,t)=0$
12.	Page 150, graph	F_t	F_T
13.	Page 152 second line after Equation 4.6.2	**vector,** is	**vector**, is *(not a bold comma)*
14.	Page 169, Exercise 5.3.8 is the same as Exercise 5.6.2		
15.	Page 173, Exercise 5.4.5	$\rho\dfrac{\partial u^2}{\partial t^2}$	$\rho\dfrac{\partial^2 u}{\partial t^2}$
16.	Page 279, Exercise 7.2.3(a)		The rectangle is $0 \le x \le L$, $0 \le y \le H$
17.	Page 289, Equation 7.4.2 - Use of a and b is not consistent with Equation 7.5.2 which uses β_1 and β_2		
18.	Page 291, part 3	**Multiple eigenvalues.**	**Multiple eigenfunctions.**
19.	Page 302, Exercise 7.6.2(b)		Add $h \ge 0$
20.	Page 335, Exercise 7.9.3 - In all boundary conditions the variable t is missing; $u(r,\theta,z,t)$		
21.	Page 336, Exercise 7.9.5 - Inconsistent with the next section where ρ is used in place of r		

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22.	Page 337, Equation 7.10.2	$u(r,\theta,\phi,0)=F(r,\theta,\phi)$	$u(\rho,\theta,\phi,0)=F(\rho,\theta,\phi)$
23.	Page 337, Equation 7.10.3	$\frac{\partial u}{\partial t}(r,\theta,\phi,0)=G(r,\theta,\phi)$	$\frac{\partial u}{\partial t}(\rho,\theta,\phi,0)=G(\rho,\theta,\phi)$
24.	Page 337, Equation 7.10.4	$u(r,\theta,\phi,t)=w(r,\theta,\phi)h(t)$	$u(\rho,\theta,\phi,t)=w(\rho,\theta,\phi)h(t)$
25.	Page 337, Equation 7.10.8	$w(r,\theta,\phi)=f(r)q(\theta)g(\phi)$	$w(\rho,\theta,\phi)=f(\rho)q(\theta)g(\phi)$
26.	Page 337, two lines above Equation 7.10.9	$f(r)g(\phi)$	$f(\rho)g(\phi)$

27. Page 342, first equation in subsection 7.10.5

$$u(\rho,\theta,\phi,t)=\begin{Bmatrix}\cos c\sqrt{\lambda}t\\ \sin c\sqrt{\lambda}t\end{Bmatrix}\rho^{-\frac{1}{2}}J_{n+\frac{1}{2}}(\sqrt{\lambda}\rho)\begin{Bmatrix}\cos m\theta\\ \sin m\theta\end{Bmatrix}P_n^m(\cos\phi)$$

28. Page 343, Equation 7.10.29 should read

$$\rho^n\begin{Bmatrix}\cos m\theta\\ \sin m\theta\end{Bmatrix}P_n^m(\cos\phi)$$

	Location	Original	Correction
29.	Page 370, 3rd line above the exercise	$\cdots$ equals on of $\cdots$	$\cdots$equals one of $\cdots$
30.	Page 411, one line below Equation 9.4.17	$u=0$	$\lambda=0$
31.	Page 433, Exercise 9.5.2 part (b), integral term	$dx_0\,dy_0$	$dy_0\,dx_0$
32.	Page 450, Equation 10.3.5	$\left[\int_{-\infty}^{\infty}f(\overline{x})e^{i\omega\overline{x}}\right]$	$\left[\int_{-\infty}^{\infty}f(\overline{x})e^{i\omega\overline{x}}\,d\overline{x}\right]$

33. Page 455, Exercise 10.3.1- Part (a) is enough to show that Fourier transform is a linear operator

34. Page 467, Equation 10.4.23 and the second line above it - The choice of w is poor since it looks too much like ω. Replace w with ξ.

	Location	Original	Correction
35.	Page 470, Exercise 10.4.6, part (2)	10.4.15, 10.4.17, 10.4.8	10.3.15, 10.3.17, 10.3.8
36.	Page 471, Hint to Exercise 10.4.9	Sec. 10.7.3	Sec. 10.6.3

37. Page 480, Exercise 10.5.14 - the choice of w is poor since it results in $S(w(x,t))=W(\omega,t)$. Use v in place of w and c_0 in place of v_0.

	Location	Original	Correction
38.	Page 481, Hint to Exercise 10.5.15	Sec. 10.7.2	Sec.10.6.2
39.	Page 481, Hint to Exercise 10.5.16	Sec. 10.7.4	Sec.10.6.4

40. Page 596, the equation in the 5th line after "theorem," should read $\mathcal{L}^{-1}[\mathcal{G}(x-a)]=e^{at}g(t)$.