Each item in this list of corrections and emendations is in the form

\[ a/b/c: \ A \quad \rightarrow \quad B \ [C] \]

to indicate that, at the location specified, A should be replaced by B, with C an optional comment.

The location specification \( a/b/c \) means page \( a \), paragraph \( b \), and line \( c \), with a positive(negative) \( b \) or \( c \) meaning a count from the top(bottom) of the page or the specified paragraph.

For example, both \( 5/5/1 \) and \( 5/-1/-3 \) refer to the same line, the one on page 5 that begins “This example was rigged…”

Either A or B can be empty, and [C] rarely occurs. An A of the form A1...A2 indicates the entire text starting with A1 and ending with A2, with … , if used in B, standing for the entire text between A1 and A2.

v/Chapter 2/1: Polynomial --> Polynomials
33/./-1: auxiliary --> auxiliary
36/4/4: of --> of
38/2/-2: at most --> at most
38/3/1: at least --> at least
41/2/2: \( (x - x_1) \) --> \( (x - x_0) \)
41/2/3: + --> \( + (x - x_0) \)
43/Figure 2.1/heading: \( x_1 \) --> \( x_i \)
45/./-1: 20 --> 19
50/2.4/-2/4: \( p_{i+1,j-1} \) --> \( p_{i+1,j} \)
54/Figure 2.3 legend/2: dotted --> dashed
66/./5/6: find then --> then find
66/1/-2,-1: some ... which --> any limit point \( \xi \) of the sequence \( \xi^{(1)}, \xi^{(2)}, \ldots \), by the continuity of \( f(n)(x) \) and any such \( \xi \) must lie in \( [\lim_{r \to x} x^{(r)}_0, \lim_{r \to \infty} x^{(r)}_n] = [y_0, y_n] \). This
70/flowchart/second-last box: ,] --> ]
82//line after label 6: ) RETURN --> ) THEN | IFLAG = 0 | RETURN | END IF
87/Example 3.2b/2: solution ... form --> smallest positive zero of
87/table/: [replace the content of the table by

| .45000000 | 1.3279984E+01 | .60000000 | \(-1.1262310E+01\) |
| .43989500 | 2.3542378E+00 | .66877546 | 1.2870500E+01 |
| .43721231 | 1.2177630E-01 | .64882229 | 2.2544956E+00 |
| .43705785 | 3.7494997E-04 | .64361698 | 1.1312314E-01 |
| .43705737 | 3.5831818E-09 | .64332721 | 3.2632512E-04 |
| .64332637 | 2.7358738E-09 |

| 105/3/-5: . --> and \( x \) by \( a + b - x \) (i.e., a rotation of the \( x,y \)-plane of 180 degrees around the point \((a + b)/2, 0\) which leaves the sign of \( f' \) unchanged but changes the sign of \( f'' \)).
110/./6,-5: number of variations \( v \) --> number \( v \) of variations
156/4.2/-8/-1: --> (Answers depend crucially on just how rounding is carried out and how substitution is handled, as in SUBST or as in Algorithm 4.2. One can get anything, from the correct solution to a singular system.)
with symmetric

162/4/2: \( p \) --- \( p \)

164/-1/4: \( A \), storing the factorization --- \( A \), stored on entry

164/-1/4,5: , and storing --- . The program stores the factorization of \( A \) in the same workarray \( W \), and stores

164/-5: \( A \) --- \( A \)

164/-4 to -1: [delete]

169/4.4-9/5: \( \ell_{i1} \) --- \( \ell_{i1}d_{11} \)
169/4.4-9/5: \( \ell_{i,j-1} \) --- \( \ell_{i,j-1}d_{j-1,j-1} \)
169/4.4-9/7: \( \ell_{j1}^2 \) --- \( \ell_{j1}^2d_{11} \)
169/4.4-9/7: \( \ell_{j,j-1}^2 \) --- \( \ell_{j,j-1}^2d_{j-1,j-1} \)

172/2/4: \( p, w \) --- \( p, w \)

179/Theorem/4: \( u \) --- \( nu \)

180/-2: \( u \) --- \( ru \)

181/-2/-4: 50 --- 50a

192/Table/: [the last entry of \( B^m z \) and of \( z^{(m)} \) for all odd \( m \) should be multiplied by \( -1 \)]

192/2/7: [move the first \( \lambda_1 \) from the numerator to the front of the fraction]

194/Program/second line after 10: 0 --- 0

205/1/-5: 11 --- 8

205/2/2.3: \( p_{i-1} \) --- \( p_i \) [three times]

206/4.8-15/1 \( m \) matrix --- matrix, i.e., a matrix \( A \) satisfying \( A = A^H \),

212/-1/2: 2 --- 3

214/: \( s_2 := t_{\max} \) --- \( (s_1, s_2, s_3) := (s_2, s_3, t_{\max}) \)

214/2/6: alright --- alright

215/5.1-1/2: +3 --- \( -3(2x_1 + x_2) \)

216/-14: \( f' \) --- \( f'(x) \)

218/-3: choice --- choices

219/Algorithm/7: \( \ast \) --- \( \ast \)

221/3/-6: from \( f \) --- from \( f' \)

231/3/3: positive ... and --- real symmetric and positive definite, i.e.,

231/4/5,7: > --- \( \geq \)

231/4/11: = \( \hat{D} \) --- = \( (1 - \omega)\hat{D} \)

236/2/-3,-2: will not ... constructing --- would be wasting time and effort if we were to construct

237/Example 6.2/1 \( \pi/4 \) --- \( (\pi/4) \)

237/Example 6.2/-2: 403 --- 4065

242/2/4: ] --- \( x \)

242/-3: \( \prod_{j=0}^{n+1} \) --- \( \prod_{j=0}^{n} \)

244/(6.19)/: \( \geq e^{n/2} \) --- \( = \frac{2^{n+1}}{e^{\ln n}}(1 + o(1)) \)

246/3/-1: : --- ; also, see Problem 6.1-15.

245/: --- \textbf{6.1-15} (R.-Q. Jia) Prove that \( \|\Lambda_n u\| \geq 2^n/[4n(n - 1)] \) by estimating \( \Lambda_n^*(1 - 1/n) \) from below.

253/Property 3/-1: . --- and some \( \alpha_k \neq 0 \).
271/-1/4: continuous $\rightarrow$ monotone [also at 274/4/-1, 276/3/-1]
272//5: $+2\{i \rightarrow -2\} = -i$
272/(6.51)/: $-ix_n \rightarrow -ix_n j$
274/2/3: $20 \rightarrow 24$
275/Example 6.14/2: the relevant quantities are: $\rightarrow c_r = f_N(r) = (f, w^{(r)})$ with $f := (f(x_j))$, $w^{(r)} := (e^{imx_j}) = (\omega^{m})$ and
275/Example 6.14/4: These are ... Further $\rightarrow$ Thus $\omega^2 = \omega^{-1} = \overline{\omega}$. Further
275/Example 6.14/-2: $-\sqrt{3/4\omega^{-2}} = \frac{1}{4} \rightarrow -\sqrt{3/4\omega^{-2}} = \frac{1}{4}\sqrt{3/4}$
289//5: 79 $\rightarrow$ 81
291/Program/: $\rightarrow$ C(2, 1) = 0
291/Program/: $\rightarrow$ C(2, N+1) = 0
299//2: gets $\rightarrow$ gets from Exercise 2.7-8 that
307//4: $x + b \rightarrow x - b$
311//1/-2: $\rightarrow$ +
311/-2/-5: nonnegative $\rightarrow$ nonnegative
312//6: $= \rightarrow -$ 6.3
313//-8,-4: 6.6 $\rightarrow$ 6.3
313//-5: 3 $\rightarrow$ 2
313//-4: 2 $\rightarrow$ 3
318//1: 8 $\rightarrow$ 5
321/(7.50)/: $f_i = \rightarrow f_i +$
325/program/statement 4: [delete it]
326/(7.54b)/: 1 $\rightarrow$ $b - a$
341/-2/-4: $h^2 \rightarrow h^2$
345/7.7-4/3: $h^2 \rightarrow h^3$ [twice]
345//-1: $\rightarrow$ )
352//5: $a_{n-1} \rightarrow a_{N-1}$
352//6: $\beta^n \rightarrow \beta^N$
356//-3: 8.23 $\rightarrow$ * [also on 356/2/3]
364/3/2: $= \rightarrow -$ 8.43
365/3/-2: NSTEP $\rightarrow$ NSTEPS
367/(8.38)/: $O(h^{p+1}) \rightarrow C_n h^{p+1} + O(h^{p+2})$ [also at 367/(8.39a)/]
367/(8.38)/+3: $C(x_n + mh) \rightarrow C_n$
367/(8.38)/+4: point $\rightarrow$ number
367/(8.38)/+5: $x = x_n + mh \rightarrow m$
367/(8.39b)/: $O(h^{p+1}) \rightarrow 2C_n h^{p+1} + O(h^{p+2})$
367/(8.39b)/+3: $C_n(h^2) \rightarrow 2C_n(h^2)$
371//2/2: outputted $\rightarrow$ output
374/1/6: 8.43 $\rightarrow$ 8.44
381//5,6: and since ... assumption, $\rightarrow$
381//9: [delete]
382//8.8-1/-1: $|Ah/2| < 1 \rightarrow Ah/2 \neq 1$
\[
\beta^2 \ldots 1 \rightarrow (\beta^2 \ldots 1)/(-3)
\]
\[
\frac{1}{2} f_n + \frac{1}{2} f_{n-1} \rightarrow +f_n
\]
\[
c_2x^3 \rightarrow c_3x^3
\]
\[
f_{n+1} + f_{n-1} + f_n = 2
\]


430//: Lebesgue \rightarrow Lebesgue

430//: \rightarrow Matrix: Hermitian, 206

430//: \rightarrow Matrix: Hermitian of a, 142

431//: \rightarrow Polynomial forms: Chebyshev, 258

431//: \rightarrow Polynomial forms: orthogonal, 253ff