Typographical Errors, and Other Brain Cramps

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March 31, 2015

Sigh. I am forced to admit that, despite my best and most earnest efforts, some typographical errors have made their way into the text. These are all the fault, of course, of evil gremlins inhabiting my laptop. What follows is the list-to-date (March 24, 2015) of known typographical errors. I of course would like to pretend that none of these exist, but reality has a way of imposing itself upon authors. I will try to present the typos in page-numeration order, with errors in the solutions manual grouped at the end.

- Page 28 (§1.3, Exercise 2d [begins on p. 27]): This should be $(1/9+1/7)+1/6$, otherwise the results are identical to part (c).

- Page 61 (§2.3, Problem 9): The given solution is slightly incorrect. The correct solution is: $y = (-\cos t + \sin t - e^{-t})/2$; I dropped the minus sign on the cosine term.

- Page 433 (Algorithm 7.5): This pseudocode for Part A of the LU decomposition was obviously written with a lot of careless cut-and-paste action from earlier codes. Here is what it should look like:

```
Part A (Factorization)


    !
    !      Compute decomposition
    !
    for i=1 to n-1
        for j=i+1 to n
            a(j,i) = a(j,i)/a(i,i)
            for k=i+1 to n
                a(j,k) = a(j,k) - a(j,i)*a(i,k)
            endfor
        endfor
    endfor
```

I failed to replace the multiplier `m` from the `naive` code with `a(j,i)`, and I left in the update of the right-hand side vector.

- Page 431 (§7.4, Example 7.3): Slightly more than halfway down the page, I claim that $y = (2, 4, 4)^T$, but the correct result is obviously $y = (2, 4, 6)^T$.

- Page 579 (Reference 6): There is a fairly obvious missing right parenthesis in the last line.

- Page 580 (Reference 8): I mis-spelled Prof. Gottlieb's name (it should be "ie" not "ei").

- (Solutions Manual) Manual Page 4 (Text Page 12), §1.1, Problem 11a: The maximum of e^{-c} on $[0, 1]$ is 1 not e, so the final bound should be

$$|R_3(x)| \leq \frac{1}{24}.$$

- (Solutions Manual) Manual Page 245 (Text Page 439), §7.4, Problem 2: The (2,2) element of U should be $u_{2,2} = 19/4$, but both L and y remain correct and the product $LU = A$ still holds.

- (Solutions Manual) Manual Page 245 (Text Page 439), §7.4, Problem 3: The correct upper triangular part of the factorization is

$$U = \begin{bmatrix} 14.0000 & 14.0000 & -9.0000 & 3.0000 & -5.0000 \\ 0.0000 & 38.0000 & -6.0000 & -1.0000 & -27.0000 \\ 0.0000 & 0.0000 & 29.2669 & -3.2293 & 8.5226 \\ 0.0000 & 0.0000 & 0.0000 & 50.3013 & 55.5483 \\ 0.0000 & 0.0000 & 0.0000 & 0.0000 & -0.4689 \end{bmatrix}$$

  My results are incorrect in the (4,4), (4,5), and (5,5) entries. Surprisingly, L is given correctly.

My most abject apologies for all of these and any others that are found in the future. If you find any more typos, please don't hesitate to contact me.