

Errata in the Text

An Introduction to Data Structures and Algorithms, J. A. Storer, Birkhäuser / Springer

- Page 12, simpler computation:** $O(n^2)$ should be $O(k^2)$.
- Page 20, 207, 218:** The 6th and 7th digits of e should be 81 not 18.
- Page 21:** In the first proof, $\log_k(2)$ should be $\log_2(k)$.
- Page 93, Recursive approach:** Each item is a value or an operator (not a parenthesis).
- Page 96, inductive step (both places):** $n > 1$ should be $n > 0$.
- Page 102, L2 (write statement):** x and y should be $stack[top-2]$ and $stack[top-3]$.
- Page 131:** In the procedure LEV, "the root" should be v .
- Page 142, Line 6:** "from i " should be "from n ".
- Page 143, line 2:** $T(i) \leq kn \log_2(n)$ should be $T(i) \leq ki \log_2(i)$.
- Page 150, SPLIT(d, T):** Delete the phrase "Delete d and" and replace "detaching" with "detach".
- Page 165:** The second recursive call of arrayMSORT should be on $m+1$, not $i+1$.
- Page 170:** In the theorem statement, it should be $\log_d(c)$, not $\log_c(d)$. Also, it should be noted that the proof assumes $b=1$, since this does not change the asymptotic value of $T(n)$.
- Page 172, Idea:** In two places, $w_1 \text{ L } w_m$ should be $w_1 \dots w_m$.
- Page 173, table:** It should be $M[1,4]=A(B(CD))=2005$, $M[2,4]=(B(CD))E=2,750$, and $M[3,3]=(CD)E=5,625$.
- Page 181:** Proof is worded badly, delete "possibly not a leaf" and "the subtree rooted at".
- Page 224:, second lemma:** "height k " should be "height h " and k should be h on top of the sum.
- Page 246:** In both the figure and the **procedure** statement, it should be SPLIT(d, T).
- Page 250:** 12 and 13 should be exchanged in the right red-black tree.
- Page 252, Line 3:** "pre-order" should be "in-order".
- Page 253:** In the third figure, the left child of the root should be red.
- Page 279:** A's should be ACK's and $A(4, m)$ should be $ACK(4, m)$.
- Page 299:** Assume u is in S when (u, v) is returned by DELETEMIN(H).
- Page 300, first line of algorithm:** "tree" should be "forest".
- Page 302:** P should be deleted from G in the second step, the inner *while* loop should ENQUEUE(v), and "at most 2" should be "0 or 2".
- Page 308, Example:** Delete "Not minimal".
- Page 310:** $z := 0$ should be $z := \infty$. Also, C should be F in the second *if* and both *else if* statements.
- Page 311:** This page has major errors. w should be v for the label of the fifth line, $F(v, w)$ should be $F(w, v)$ in the second MINIMUM statement, and in the complexity analysis, v should be w in the two lines after the *while* statement and C should be F . Also, $z := 0$ is unnecessary, the statement " $z :=$ first component of v 's label (or ∞ if $v=s$)" is missing after the Dequeue statement, and " $z :=$ first component of t 's label" is missing before the *while* loop in the complexity analysis.
- Page 325, bottom:** The sentence is reversed; it should be "... since the computational version is at least as hard as the yes-no version ..."
- Page 327, ND Acceptance:** "algorithm" should be "polynomial time algorithm".
- Page 328, TSP definition:** "tour" should be "Hamilton tour"; also, the graph must satisfy the triangle inequality (still NP-complete) for the algorithm to produce a simple cycle.
- Page 363:** " $S[i=m+j+1]=T[j+1]$, but $S[i+m-j] \neq T[j]$ " should be " $S[i-m+j+1]=T[j+1]$, but $S[i-m+j] \neq T[j]$ ".
- Page 374, (aa+bbb)*:** Should be "strings made from pairs of a 's and triplets of b 's".
- Page 375, bottom figure:** The double arrow should be a single arrow from 4 to 1.
- Page 386, last paragraph:** "have size" should be "have depth"; delete "to $O(n)$ ".
- Page 406, CHAR:** Not the usual MEMBER; go down (similar to INDEX) using COUNT fields of children.
- Page 426, Similarity:** Delete " r^m , it follows that" and put $1/n$ in front of the left brace.
- Page 444:** First $(n-1)$ should be $(2n-1)$ in lower right entry of both matrices.
- Page 432, bottom figure:** F should be G and r^k should be r^{-k} .
- Page 452:** In Step 3, formula applies to the magnitude; also, in Step 5, "15 or more" should be "16 or more".
- Page 453, Step 4:** "inter" should be "intra" and the last sentence should note that both I and P may be out of order.
- Page 481, last paragraph:** Replace "0 through 9 in the leaves of" by "1 through 9 in".
- Page 491, equivalent algorithm:** Delete " i is a multiple of k and".
- Page 500:** Algorithm line 5, $X[r-1, i]$ should be $X[r-1, \text{FLIP}(r, i)]$; also, figure rank 2 should all have $x=4$.
- Page 522-523:** For simplicity, we assume at most one wire per grid line, rather than $O(1)$ per line.
- Page 523, last line:** " wT " should be " hT ".