Errata for
“Combinatorics: The Art of Counting”
(Revised September 1, 2023)

In the list that follows p/l (respectively, p//l) refers to the lth line from the top (respectively, bottom) of page p, ignoring figures. Also, $A \leftarrow B$ means $A$ is to be replaced by $B$.

3//17 set of tiles $\leftarrow$ sequence of tiles
3//10 $T_0 \leftarrow \#T_0$
3//9 $T_1 \leftarrow \#T_1$
17
22/9–10 Let $i$ be the smallest such index and let $j$ be the first index after $i$ where repetition occurs. $\leftarrow$ Let $j$ be the smallest index such that $v_j$ equals an earlier vertex in the sequence and let $v_i$ be that earlier vertex.

28//2 std $\sigma \leftarrow \text{std } \sigma'$
37/16–17 bijection, that is, when $n = k \leftarrow$ bijective and $n = k$ are positive integers
49/6 Rogers-Reamanujan $\leftarrow$ Rogers-Ramanujan
47//11 andis $\leftarrow$ is
59/8 Gessel $\leftarrow$ Gessel
61, two lines above Proposition 2.6.1: matrix $C(G) \leftarrow$ matrix $C = C(G)$
69/2 Gessel $\leftarrow$ Gessel
79/13 We induct on $k$ where the case $k = 0$ is left to the reader. If $k > 0 \leftarrow$ We do a double induction on $k, l$ where the cases $k = 0$ and $l = 0$ are left to the reader. When $k, l > 0$
82/18 the that range $\leftarrow$ that the range
84/15 for any $n \leftarrow$ for $n = 1$
85/9 $n > N \leftarrow k > N$
100/16 to the enumerating $\leftarrow$ to enumerating
102//17 $A \not\subseteq B \leftarrow A \not\supseteq B$
104/11 Exercise 14(b) of Chapter 1 $\leftarrow$ Exercise 19(b) of Chapter 2
104/14 $\phi^{-1}(O') = 1 \leftarrow \#\phi^{-1}(O') = 1$
104/15 $\phi^{-1}(O') = 2 \leftarrow \#\phi^{-1}(O') = 2$
104/17 $\phi^{-1}(O') = 2 \leftarrow \#\phi^{-1}(O') = 2$
104/21 $\phi^{-1}(O') = 2 \leftarrow \#\phi^{-1}(O') = 2$
109//4 Use part (b) $\leftarrow$ Use parts (a) and (b)
110//6 two way $\leftarrow$ two ways
113//15 $b > \min B_j \leftarrow b > \min B_{i+1}$
114/1–9 Throughout this exercise, one should use the inversion statistic, inv, rather than the major index, maj.
120//15 $\pi_k \leftarrow \pi_{k+1}$
120//14 $k$ is odd $\leftarrow k$ is even
120//10 $k$ is odd $\leftarrow k$ is even
120//9 even $k \leftarrow$ odd $k$
136/14 show that $\leftarrow$ show that, for $n \geq 1,$
136/16 show that \(\xrightarrow{}\) show that, for \(n \geq 0\),
143//5 upper-order ideals \(\xleftarrow{}\) Upper-order ideals
145/13 \(X/Y\) \(\xleftarrow{}\) \(Y/X\) (in two places)
150/10 finite \(\xleftarrow{}\) finite, nonempty
151/10 \(z, y, z \xleftarrow{} x, y, z\)
172/2 right-hand \(\xleftarrow{}\) bottom
173/14 \(y \in I(x) \xleftarrow{} y \in I(X)\)
173/16 \(I(X) \rightarrow (X) \xleftarrow{} I(X) \rightarrow I(X)\)
177//8 12(c) \(\xleftarrow{}\) 12(a)
180 & ff Use \(f_\phi\) for \(F_\phi\) so there can be no confusion with the factorial function of \(P\).
182//20 \(s \in \mathbb{C} \xleftarrow{} s\) is an integer greater than 1
182//18 Add at the end of the sentence: for \(s\) with real part greater than 1.
192//17 function \(\xleftarrow{}\) which is an analytic continuation of the series definition of \(\zeta(s)\)
184//3 a poset \(P \xleftarrow{}\) a finite poset \(P\)
190//2 \(#\mathcal{O} \mid #X \xleftarrow{} #\mathcal{O} \mid #G\)
193//5 4\(^2\) \(\xleftarrow{}\) 2\(^4\)
197//2 we say \(\xleftarrow{}\) we saw
199/2 \((\binom{n}{k})^g \xleftarrow{} \#(\binom{n}{k})^g\)
205/5 since cycles commute \(\xleftarrow{}\) since disjoint cycles commute
214//4 polynomials \(\xleftarrow{}\) polynomials with nonnegative coefficients
222/13 \(\sum_{\ell(\lambda)=n} \xleftarrow{} \sum_{\ell(\lambda)=n}\)
224//10 Gessle \(\xleftarrow{}\) Gessel
227/14 Gessle \(\xleftarrow{}\) Gessel
228//7 Gessle \(\xleftarrow{}\) Gessel
231/14 to be replace \(\xleftarrow{}\) to be replaced
231/17 to be replacec' := \(c \xleftarrow{} c := c'\)
237//11 \(x^{\text{des}\pi} \xleftarrow{} x^{\text{des}\pi} + 1\)
238//13 Note \(\xleftarrow{}\) Recall that linear extensions were defined in Section 5.5. Note
240/7 (7.23) yields \(\xleftarrow{}\) (7.23) yields
242/5 \(r_{\pi_k} \xleftarrow{} r_{\pi_k}(P_{k-1})\)
245/16 \(P_{k-1} \xleftarrow{} P_{k-1}\), assuming \(j \geq 2\). When \(j = 1\), a similar proof will work
244//14 st\(U\) \(\xleftarrow{}\) sh\(U\)
268//17 7\(M_{121} \xleftarrow{} M_{121}\)
269//10 impose by \(\alpha \xleftarrow{}\) imposed by \(\alpha\)
278/7 \(\sigma \in \mathfrak{S}_n(\Pi) \xleftarrow{} \sigma \in \text{Av}_n(\Pi)\)
278//14 \(\sigma \in \mathfrak{S}_n(\Pi) \xleftarrow{} \sigma \in \text{Av}_n(\Pi)\)

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