

Errata for the 2nd edition of
“The Symmetric Group”

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

ix/3: Eition \leftarrow Edition

12//15: epresentation \leftarrow representation

12//3: $X(e) \leftarrow X(\epsilon)$

16//10: add “for all $w \in W$ ” to the definition of W^\perp

20/7: $T \leftarrow A$

21/3: $H \leftarrow \mathcal{H}$

35/1–2: This is only true if the field has characteristic zero or is relatively prime to $|G|$.

35//1: $A \cong B \leftarrow A = B$

36//11–12: Replace the first two sentences by “Now suppose $\chi = \psi$ so we can take $A = B$.”

37/9: orthogonality relations \leftarrow “orthogonality relations” with respect to the bilinear form $\langle \cdot, \cdot \rangle'$.

39/6: 13 \leftarrow 15

50/8: The proof given in the exercise is only valid if the field has characteristic zero or is relatively prime to $|G|$.

51//4: One does not need to use the fact that C_n is normal in D_n .

64/1: linearity by conjugate linearity \leftarrow conjugate linearity by linearity

64//1: add “or $\mathbf{0}$ ” at the end of the last sentence

65/3–4: dominance lemma \leftarrow Dominance Lemma

65/5–6: Replace this sentence by “If $\lambda = \mu$, suppose first that two elements in the same row of s are also in the same column of t . Then, by part 4 of the Sign Lemma, $\kappa_t\{\mathbf{s}\} = \mathbf{0}$. If no such pair of elements exist then, by the same argument which established the Dominance Lemma, $\{s\} = \pi\{t\}$ for some $\pi \in C_t$.”

65/9: $\{s_i\}$ should be all boldface

65/19: exits \leftarrow exist

65/10: $\sum_i \pm c_i \mathbf{e}_t \leftarrow \sum_i d_i \mathbf{e}_t$ where $d_i = \pm c_i$ or 0

65//2: $\{s_i\}$ should be all boldface

66//16: The sum should be over $\lambda \supseteq \mu$

69/10: $(k, l)\{s\}$ has fewer inversions than $\{s\} \leftarrow (k, l)s$ has fewer inversions than s

70/13: is is \leftarrow is

70//11: $\mathbf{e}_{\pi t} \leftarrow (\text{sgn } \pi) \mathbf{e}_{\pi t}$

73//7: $[\pi t] \supseteq [t] \leftarrow [\pi t] \triangleright [t]$

77//11: $\{\mathbf{t}_i\} \leftarrow \{\mathbf{t}^i\}$

79/5: Here and in the rest of this section $\mathbb{C}[\mathcal{T}_{\lambda\mu}]$ should be $\mathbb{C}\mathcal{T}_{\lambda\mu}$

81/6: cyclicity \leftarrow cyclicity of

83//15: $\mathcal{T}_{\lambda\mu} \leftarrow \mathcal{T}_{\lambda\mu}^0$

84//6–7: T_2 should be boldface in four places

85/7: In “some T appearing” the T should be boldface

88/14: One can not use an arbitrary ordering of the tableaux. Instead compute the row word π_t , as defined on page 101, for each tableau t and then order the tableaux by the lexicographic ordering of their row words.

95//8: “Case 1: $y = m$.” should be underlined

97/1: “Subcase 2b: $u \neq v$.” should be underlined

97/7: $r_y \leftarrow c_y$

100/17: $P \leftarrow P$

105//8: The first line of $P(\pi)$ should be 1 3 5 6 8

109//3: $y_{L_j} \leftarrow x_{L_j}$

113//7: maximum \leftarrow minimum

114: Throughout the example, the 5 and the 6 should be interchanged

114//10: Remove the period.

115/4: $Rb \leftarrow Bb$

115//1: standard \leftarrow partial

120//8–14: The notation j_a should be j^a everywhere for $a = c, d$.

120//5: $V \cup P \cup W$ and $V \cup P \cup W \leftarrow V \cup P \cup W$ and $V \cup Q \cup W$

126//14: $T_{\leq c_6} \leftarrow T^{\leq c_6}$

126: In lines 1, 5, 6, and 10 from the bottom replace each “standard” by “partial”

128//19: $T'_{k,l}$ if $k < 0 \leftarrow T'_{h,l}$ if $h \leq 0$

129/9: Remove the period after the close parenthesis.

129/17: $a_{h,j} \leftarrow a_{h,j}$

129//3: $14^3 \leftarrow 14^4$

130//17: $r' \leftarrow r'_0$

130//13 $T'_{i_1, j_1} = T''_{i_1, j_1 - 1} < T''_{i_1 + 1, j_1 - 1} = T'_{i_1 + 1, j_1 - 1}$
 $\leftarrow T''_{i_1, j_1} = T'_{i_1, j_1 - 1} < T'_{i_1 + 1, j_1 - 1} = T''_{i_1 + 1, j_1 - 1}$

133//10: $i \geq 2 \leftarrow j \geq 2$

138//16: The sum should only be over n -vertex lower order ideals of the infinite binary comb which is the partial order on the set $\mathbb{P} \cup \{1', 2', 3', \dots\}$ with the usual total order on \mathbb{P} together with i' covering i for all $i \geq 1$.

145//10: Let S be a se \leftarrow Let S be a set

147/14: in of $T \leftarrow$ of T

150/6: $T \leftarrow T''$

150/7–9: Thus p' starts weakly to the east of p'' . By the same arguments as in Lemma 4.3, p stays to the east of p' . Since p' reaches the east end of row $i' = i$ by assumption, so must $p \leftarrow$ Thus r' starts weakly to the east of r'' . By the same arguments as in Lemma 4.2.3, r' stays to the east of r'' . Since r'' reaches the east end of row $i' = i''$ by assumption, so must r'

155/11: $x_1^{\mu_1} x_2^{\mu_2} \cdots x_m^{\mu_l} \leftarrow x_1^{\mu_1} x_2^{\mu_2} \cdots x_l^{\mu_l}$

157/5: the the row \leftarrow the row

160/8: describes \leftarrow describe

161//8: $i, j \leftarrow$ distinct i, j

165//15: $h_{i-j} \leftarrow h_{j-i}$

166/14 standard tabloids \leftarrow tabloids

176/7: $s_\mu(\mathbf{x})s_\nu(\mathbf{y})s_\lambda(\mathbf{z}) \leftarrow s_\mu(\mathbf{x})s_\lambda(\mathbf{z})$

180/8: (the number of rows of ξ)-1 \leftarrow the number of rows of ξ below the first row

180//7: $\alpha \setminus \alpha \leftarrow \alpha \setminus \alpha_1$
 192/2: *meet* ,if \leftarrow *meet*, if
 194 equation (5.4): $a_1 < a_1 \leftarrow a_1 < a_2$
 194–195: In some books these two pages are switched
 215/13: $\mathcal{B}_2 \leftarrow B_2$
 215/14: subsets \leftarrow nonempty subsets
 216/16: These components \leftarrow The components of the subgraph F
 216//7: that both \leftarrow that
 217/17: $v_n, v_1 \in E(T) \leftarrow v_n v_1 \in E(T)$ where $n \geq 3$.
 217//15: neighbors $v \leftarrow$ neighbors of v
 221//4: $(n - k)I \leftarrow (n - 2k)I$
 227//12: [Sciü 76] \leftarrow [Sciü 77]
 227//6: Stn \leftarrow Sta

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