

**Errata for Multiple Testing Problems in Pharmaceutical Statistics (Edited by
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1. **p. 19, Exercise 1.10:** The last line should read “is rejected if there is no more than one misclassification.”
2. **p. 27, Example 2.2:** In the calculation of the CI for σ , 18 inside the square root sign should be 19. The final CI is [303.89, 583.66].
3. **p. 56, Calculation of $\hat{\beta}_{12}$:** The + sign between $(50 - 30)$ and $(35 - 25)$ should be – sign.
4. **p. 104, Example 3.19, second last line:** $(12.749)^2 = 214.38$ should be $(12.749)^2 = 162.54$.
5. **p. 186, line 5:** $\sum_{i=1}^a e_{ij}$ should be $\sum_{i=1}^a n_{ij}e_{ij}$.
6. **p. 186, middle of the page:** “intra-block estimators” should be “interblock estimators.”
7. **p. 219, Exercise 5.19:** This exercise, as stated, is incorrect since the patient effects are confounded with the sequence effects.
8. **p. 244, Bottom:** The $\frac{1}{2}$ inside the square-root sign in the calculation of the estimated standard error of $\hat{\mu}_2 - \hat{\mu}_1$ should be omitted and that number should be 0.0766 instead of 0.0541. In the following calculation of SCI for $\alpha_2 - \alpha_1$ the critical constant 3.532 should be divided by $\sqrt{2}$ and 0.0541 should be changed to 0.0766. The final answer $[-0.049, 0.333]$ is correct.
9. **p. 267, line below (7.11):** “thata” should be “that a.”
10. **p. 293, Exercise 7.7:** This exercise refers to Exercise 7.4 — not 7.3.
11. **p. 310, line 4:** “Display 8.16” should be “Display 8.2.”
12. **p. 311, Defining relations for 2^{8-4}_{IV} design:** $\pm ABCG$ should be added to the equation.

13. **p. 374, Equation (9.13):** Delete an extra -1 in the vector A_2 .
14. **p. 421, line 10:** Chapter 13 should be Chapter 12.
15. **p. 455, calculation of L :** The value of $L = 0.127$ — not 0.400.
16. **p. 547, Table 11.3:** The second-to-last column should be labeled $E(\text{MS})$. The last column should be labeled F .
17. **p. 467, Section 11.3.2.1:** The rules given for expected mean squares apply to the restricted model — not to the unrestricted model assumed elsewhere in the chapter.
18. **p. 468, last line:** The F -statistic should be $F_{AC} = \text{MS}_{AC}/\text{MS}_{ABC}$.
19. **p. 483, Exercise 11.10:** The data for the exercise is in Table 11.13 — not in Table 11.3 as mentioned in line -3 .
20. **p. 483, Exercise 11.11:** In the third sentence, delete “and” following “Since shingles are brittle.” Add a period at the end of the next sentence.
21. **p. 525, Exercise 12.4 (a):** The last sentence should be changed to “Show that there is not a significant difference in types of interventions.”
22. **p. 528, Table 12.19:** The data value for Lot 15, Wafer 2 and Site 5 should be 100.520 instead of 00.520.
23. **p. 582, Example 14.4:** In the equation for SS_{H_0} , \bar{y}_i should not be bold as it is not a vector.
24. **p. 646, Answer to Exercise 3.5 (b):** The F -statistic and the p -value should be $F = 48.0, p = 0.000$.
25. **pp. 649-650:** The exercises numbered 5.22, 5.23, 5.24 should be renumbered 5.21, 5.22, 5.23.
26. **p. 653, Answer to Exercise 8.14:** The answer given is computed from untransformed data. The answer computed using the square-root transformed data is as

follows.

The effect estimates are

$$\hat{A} = -24.74, \hat{B} = -25.32, \hat{C} = -16.32, \hat{D} = 13.17, \hat{E} = -49.80, \hat{F} = 163.00,$$

$$\hat{G} = -81.10, \hat{H} = 24.20, \hat{J} = -116.12, \hat{K} = 10.78.$$

The normal plot of the effects identifies only the main effects F and J as significant at $\alpha = 0.05$.

27. **p. 659, Answer to Exercise 11.1 (c):** $\hat{\rho} = 0.205$ — not 0.295.

28. **p. 660, Answer to Exercise 12.10:** This answer is computed with one wrong data value in Table 12.19 (see above). The corrected answer is as follows: The site effect cannot be tested since so no error estimate is available (because $n = 1$). The lot and wafer effects are significant ($F = 7.526, p = 0.000$ and $F = 5.147, p = 0.000$). Variance component estimates are

$$\hat{\sigma}_{\text{Lots}}^2 = 35.624, \hat{\sigma}_{\text{Wafers}}^2 = 8.796, \hat{\sigma}_{\text{Sites}}^2 = 19.090.$$

To minimize variability, focus on sites and lots.

29. **p. 660, Answer to Exercise 12.13:** This answer assumes that Analyst is a fixed factor as in Example 12.3. If Analyst is treated as a random factor then the answer to (a) is only the mouse(medium) effect is significant ($F = 17.07, p = 0.000$) and the answer to (b) is

$$\hat{\sigma}_{\text{Analyst}}^2 = 68.355, \hat{\sigma}_{\text{Mouse(Medium)}}^2 = 143.717, \hat{\sigma}_{\text{Analyst} \times \text{Medium}}^2 = 8.708,$$

$$\hat{\sigma}_{\text{Analyst} * \text{Mouse(Medium)}}^2 = 1.0366, \hat{\sigma}_e^2 = 51.599.$$